

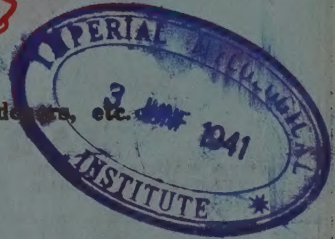
THE FRUIT WORLD

"Market & Grower"

ESTABLISHED 42 YEARS.

Circulates to Growers of Dried, Canned, Deciduous, and Citrus Fruits, Market Gardeners, etc. Throughout Australia, New Zealand and abroad.

TELEPHONE NUMBERS: MELBOURNE, F 2656; SYDNEY, M 6751.



Vol. XLII. No. 3

MARCH 5th, 1941

Price 6d.

Special Articles This Month

Apple and Pear Acquisition
Letters to the Editor
South Australian News and Notes
Grape Juice Investigations
Victorian News and Notes
Poultry, and Pig Notes

Market Grower Section
Dried and Canned Fruit
New South Wales
The Goulburn Valley, Vic.
Motor Notes
News from Tasmania

Conference of Victorian Central Citrus Association

"LIGHTNING" ROTARY BIN FRUIT GRADERS

2 Quality, 12 Size, with Packers' Cull Belts and Sorting Table, Sliding Case Holders with Rest Rail—necessary for Packers.

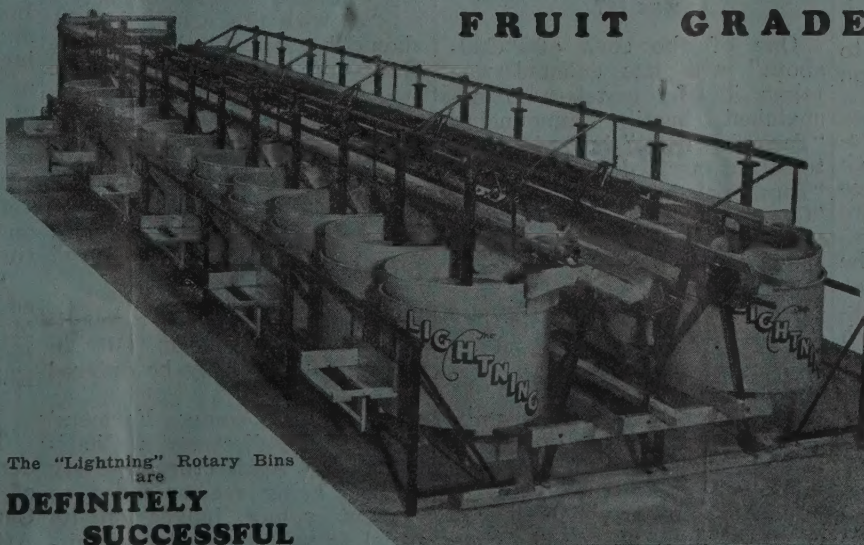
Built in one or more qualities, as desired, with bins on one or both sides—any number of bins.

Latest and most Improved type with latest American design of suspension springing. Quickly changed for various weights of fruit.

Bins of large capacity — each 3-foot bin will hold between 8 and 9 cases.

Bins fill and lower automatically while revolving—the inner tray being specially designed to maintain a uniform height of fruit.

"Lightning" Rotary Bins fill correctly because they are protected by "Lightning" Patents and design.



The "Lightning" Rotary Bins are

**DEFINITELY
SUCCESSFUL**

EXCLUSIVE FEATURES ONLY OBTAINABLE ON "LIGHTNING" MACHINES:

- Latest American suspension Springing.
- Special sides to floating tray, which enables fruit to rise perfectly.
- Special Chutes fill the floating tray from the centre outwards with centre high crown of fruit.
- All working parts in the bin are enclosed so the fruit cannot be damaged.
- Bins definitely fill automatically and rise, keeping the fruit at bin top level.

A great time saver.

Continuous operation gives INCREASED CAPACITY by increasing the packers' output, thus reducing costs.

ABOVE VITAL FEATURES ARE ONLY OBTAINABLE ON "LIGHTNING" ROTARY BIN GRADERS.

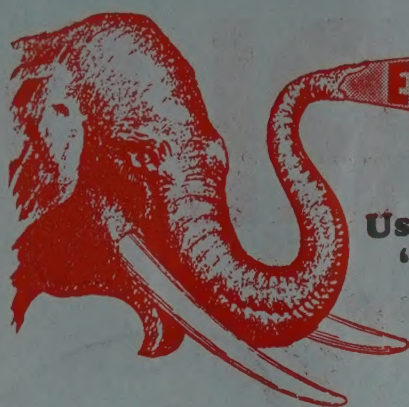
"LIGHTNING" GRADERS
1-2 to 5 qualities for color grading and packing to count.
INDEPENDENT SECTION ROLLER—all chain driven—also friction drive.

**Lidding Presses
Clamp Trucks
Paper Holders**

SPECIAL SORTING ELEVATORS with Patented, Scallop ROLLERS to prevent injury.
PATENTED PEAR ROLLER prevents stems being chopped off.

LIGHTNING Specialised IMPLEMENTS for ORCHARDS and VINEYARDS.

THE "LIGHTNING" FRUIT GRADER CO., 517 Albion St., West Brunswick N.12 Melb., Vic.



ELEPHANT BRAND SPRAY

Use

"ELEPHANT" Brand
Arsenate of Lead—Quality Stands Alone.

We can supply all your Spray Requirements—**ARSENATE OF LEAD (Paste or Powder), SPRAY SPREADER, SPECIAL COPPER MIXTURE, LIME SULPHUR, WHITE OIL, NICOTINE SULPHATE, RED OIL Etc.**

Extract from "BETTER FRUIT," by Dr. R. L. Webster, Entomologist, State College of Washington, Pullman: **CODLING MOTH COVER SPRAYS**—"Ever since the imposition of an arsenic tolerance in 1926, and even before that time, investigators have been testing other materials which may be used in place of lead arsenate. Following all these intensive and extensive investigations lead arsenate appears to have certain inherent qualities which place this material foremost as an insecticide for codling moth control."

Are Actual Manufacturers and Distributors of
"ELEPHANT" Brand Sprays.

J A Q U E S P T Y . L T D . ,

Factory: **MADDER GROVE, BURNLEY, E.I., MCELEB., Vic.** Telephone: J 2008. City Office: **31 Queen St., Melbourne.** Telephone: MU 4756

INTERSTATE AGENTS:
N.S.W.—Producers' Distributing Society Ltd., Valentine and Quay Streets, Sydney.

Q'ld.—Buzacott's Ltd., Adelaide Street, Brisbane.

S.A.—Silbert, Sharp & Bishop Ltd., Rundle St. E., Adelaide.

W.A.—Westralian Farmers' Ltd., 569 Wellington St., Perth.

N.Z.—Pizzey, McInnes Ltd., Box 1114, G.P.O., Auckland.

Tas.—Sole Agents, E. R. Cottier Pty. Ltd., Davey St., Hobart; Exeter, West Tamar; also at Devonport and La Trobe.

PITHY BITS

By "Gad-about"

Crises of Life

Crises is the plural of crisis and life is full of them. The dictionary meaning of crisis is "turning point." The war is now approaching its crisis. The moment is surely coming when Hitler will let loose all the vomits of Hell, and the British Empire, in meeting them, will rise to heights it has never yet known.

The tree that has grown grafted on to the sturdy British stock in death will take on a new life—new vigor—new force. The fruit which it will bear will be fuller flavored, richer colored and better fibred than any it has yet borne.

Strangely enough it is not the big crises that one of our stock fail in, but it is the smaller "turning points" which catch us bending.

I suppose that marriage is a crisis for most of us, and death another, and so are Tomato gluts and strikes, Acquisition Boards, and so are droughts.

What an extraordinary anomaly it is that a race which could colonise Australia, a race which has led in world affairs for centuries—the most extraordinary creation of nations the world has yet known, having as its centre that stout, unbreakable little Island in the North Sea, should leave the problem of fruit marketing unsolved. Why is it thus?

Tomato Crisis.

"Gad-about" wishes the growers good luck. 2/3 per case and pay freight and supply cases could not pay one-quarter of a minimum wage. No wonder the growers refuse to sell. Is there to be another Board? A Board for everything and we are bored with Boards. "Gad-about" says "Go ahead, Tomato growers, and fight for your rights and stand firm."

The soft fruit season is coming to an end with crops ample, quality somewhat inferior and price often extremely low. Same old story and the grower paying most of the loss.

In these days of minimum wages why should there not be a fixed minimum price for fruit and then leave it to the grower to do the best he can for himself? The reply is, of course, that when fruit is bad in condition and faulty you can get something for it, and something is better than nothing, but on the other hand much of the waste which now occurs through delayed selling, bad packing and faulty growing would not occur if bad fruit became unsaleable by the fixing of a minimum price.

A Joke on "Gad-about," or was It?

One of the sons of "Gad-about" who has enlisted was taken ill and a telegram despatched hastily announcing "Tom sick here," but when the telegram arrived it announced "Tom shick here." This son of "Gad-about" is a rabid teetotaler and prohibitionist, which added to the humor of the mistake—or was it? How is that for a Government job?

Producers Make Fortunes.

"Gad-about" heard recently of the wealth being made by some producers. I am afraid it is too good to be true. I am reminded of a letter which appeared in the daily press some time ago discussing the issue as to whether poultry keeping paid. The letter writer claimed, in all seriousness, that he had 42 hens which laid 41 eggs per day for the whole of the year and then went on to show that poultry keeping did pay. In the next issue of the paper there appeared

a letter signed "Next Door Neighbour." He too kept fowls, but eggs were the exception, not the rule. He could not see how his neighbour could get such results, so he thought he would go down to his poultry run and talk to his hens about it. He then discovered hidden behind a bush a hole in the fence between him and the neighbour who had made poultry keeping pay. He watched his hens and they, with hardly an exception, went in

through the hole, laid their egg next door, and came back to cackle about it. That is how poultry keeping pays. Another way is never feed them but let them feed on your neighbour's crops and every egg is all profit. "Gad-about" has many other ways as good as these but he will not be held responsible for the crises which may arise out of the episodes.

Good hunting, growers, and good day!

Young Farmers' Clubs

Scholarship Granted.

A three-year scholarship has been awarded to Robert H. Ducat at either Dookie or Longerenong Agricultural Colleges under an award provided by the Council of Agricultural Education.

A list of past members of Young Farmers' Clubs is now being compiled of men on active service with the A.I.F. Names should be sent to the Association's office at 422 Collins-street, Melbourne, C.I.

At the Farmers' Convention to be held at Bairnsdale, commencing on April 21, Young Farmer Club work will be featured. Reports and displays will be submitted by Victorian Clubs.

A club is being organised at Boort, where a pasture competition for the Norman Martin Shield will probably be entered upon.

A Senior Young Farmers' Club is being discussed at Charlton. The Agricultural Society is also being recommended to appoint young judges on its panel as well as on its committee.

Miss L. Giles, a new teacher at Lake Marmal, is keen on Young Farmer work and will be supported by parents and local farmers. At Knowsley and Toolleen sheep and wool are at present the main interests. Longlea Club is ambitious enough to

consider the provision of a dam to supply water for their pasture plots.

Tresco members have erected a fruit drying shed by working bees. Donations of building material helped and there is now a scheme to add a dipping plant. For the first season this club will pick fruit from their own plots.

Associated with the Lake Boga School are pasture plots and several rows of vines. During the year the senior members of the school made careful study of the plots and were assisted, especially in pruning, by district residents. While a Young Farmers' Club has not been formed yet, good work is being carried on in the extension of agriculture at the school.

Shepparton East Y.F.C. elected its office-bearers: President, M. Swainston; Vice-President, H. Cook; Secretary, Shiela Ebbott.

The harvesting of Flax was demonstrated at the model farm of the Lithgow Junior Farmers' Club by Mr. T. McCracken. After the sheaves have been retted they will be allowed to dry, when the fibre will be extracted.

The junior farmers have three varieties growing at the farm, Liral Crown (the standard type), Giza Purple (intermediate), and Blue Riga (Linseed type).

ANNUAL SUBSCRIPTION
WITHIN THE
COMMONWEALTH AND
NEW ZEALAND,
6/6, Post Free.
Including "Fruit World Annual,"
7/6 per annum.
SIXPENCE PER COPY.
OVERSEAS, 8/6, Post Free.
(Including "Annual," 10/- per an.)

THE FRUIT WORLD & MARKET GROWER

AN EXCELLENT
ADVERTISING MEDIUM
BECAUSE OF ITS WIDE
AND COMPLETE
CIRCULATION.

ADVERTISING RATES ON
APPLICATION.

A Monthly Newspaper published in the interests of the Berry Growers, Deciduous, Citrus, Dried and Canned Fruitgrowers, and Market Gardeners.

Registered Office:

8-10 ORR STREET,
MELBOURNE.

(Off 78 VICTORIA ST.)

Box 1944, G.P.O. - - Phone: F 2656 (2 lines).

— by the —

FRUIT WORLD PTY. LTD.

(Members of the Australian Monthly Newspapers' Association)

439 KENT STREET,
SYDNEY.

Phone: M 6751 (3 lines).

Contents

Illustrations.	Page		Page
Mr. H. L. Anthony, M.P. . . .	7	Market Notes and Prices . . .	25
Grapes Growing in South Australia	17	Motor Notes	26
		New South Wales News and Notes	11
		Obituary	3
Subjects.		Overseas Fruit Briefs	22
Apple and Pear Acquisition . .	7	Peach Varieties, New	13
Apples, Storage of	28	Pig Pen	27
Canned Fruits	13	Pithy Bits	2
Citrus Industry	5	Poultry Notes	27
Dried Fruit News and Notes . .	23	Pruning Notes	27
Grape Juice Investigations . .	17	South Australian News and Notes	15
Grapes Not to Rot on Vines . .	19	Tasmanian News and Notes . .	28
Green Manure as Substitute . .	10	Victorian News and Notes . .	21
Goulburn Valley, Victoria . .	13	Western Australia	18
Letter to the Editor	4	Young Farmers' Clubs	2
Market Grower	19		

Index to Advertisers

	Page		Page
Adelaide Fruit Merchants . . .	26	Lightning Fruit Grader Co.	Cover i.
A.M.P. Society	14	Melbourne Fruit Merchants . .	24
Anti-Bruze Corrugated Fruit Pads	22	Mellor, F. R.	17
"Australasian Poultry World" .	8	Neptune Oil Co. Ltd.	4
Bay View Fruit Picking Bags . .	14	Nitrogen Fertilisers Pty. Ltd. .	21
Blyth Chemicals Ltd.	5	Nobelius, C. A., & Sons Pty. Ltd.	18
Brisbane Fruit Merchants . . .	25	N.S.W. Chamber of Fruit and Veg. Ind.	26
Brookes Lemos Ltd.	7	Paterson & Co. Ltd.	13
Consolidated Fibre Products . .	6	Patrick, James, & Co. Pty. Ltd.	20
Cooper, Wm., & Nephews (Aust.) Pty. Ltd.	9	Producers' Co-op. Dist. Soc. . .	23
Davis Gelatine	7	Rosen, L.P., & Son	19
Electrolytic Refining and Smelting Co. of Aust. Ltd. . .	10	Russell Burrows Pty. Ltd. . . .	7
F. & M.G. Society	15	Sydney Fruit Merchants	23
Gerrard Wire Tying Machines Co. Pty. Ltd.	8	Trehwella Bros. Pty. Ltd. . . .	10
Goodman, C. J.	13	U'Ren, Geo. A.	7
Harvey, Daniel, Ltd.	12	Vacuum Oil Co.	8
Hillman & Keogh	20	"V.H.O."	24
International Harvester Co. of Aust. Pty. Ltd.	16	War Savings Certificates 19, 22, 25	
Jaques Pty. Ltd.	2	Werner, R., & Co. Pty. Ltd. . .	28
Leggo, Victor, & Farmers Ltd. .	6	Wholesale Fruit Merchants' Association of Victoria	27
		Wicks, L. J.	11
		Wilson, Herbert, Pty. Ltd. . . .	25

QUEEN CARNIVAL.

In Aid of Red Cross and
Comforts Fund.

Primary Products Queen Takes Lead.

Interest is increasing in the Queen Carnival in Victoria. Ten sections have each selected a Queen. The Primary Products Queen is Miss Strella Wilson, the well-known singer. When the voting opened the Queen of Essential Services headed the list, but the Queen of Primary Products quickly forged ahead from fourth to top place. Votes are 1d. each. If each of the 10 Queens raises £5,000, the needed £50,000 will be secured for the Red Cross and Comforts Fund (equally divided). The winning Queen will be crowned at the Melbourne Cricket Ground at the end of March. Fruitgrowers can contribute through their cool stores or other organizations. The Organizing Secretary is Mr. J. D. Porter, 524 Collins-street, Melbourne.

WHY SHOP THERE?

Retail fruit stores can take a lesson from the reasons given by a lady who passed one store to purchase at a store further away. Here is the reason given: "Why do I go there? It isn't price....
"But his store is always so clean and nice.
"Everything handy . . . open display....
"I can help myself . . . there's no delay.
"No baskets, boxes or junk on the floor,
"It's a pleasure to shop at a well-arranged store!"

OBITUARY.

The death occurred in Perth, Western Australia, recently of a well-known Bridgetown resident, Mr. F. E. S. Willmott. Born in England in 1870, Mr. Willmott came to Australia in 1887, and had varied experiences in gold prospecting, dairy farming, Government Supervisor of road-making and forest ranger. About 38 years ago he took up his property "Applewood," and has been there ever

BRITAIN'S INCREASED FOOD PRODUCTION.

24-Hour-a-Day Job.

NOT ONLY are the British Government, Board of Trade, Ministry of Agriculture and other official bodies working hard in a supreme effort to feed the nation, but the people of Britain are wholeheartedly supporting the authorities.

In addition to a definite move to increase exports, attention is given to increased primary production. It is reported that 2,000,000 additional acres are being brought into cultivation in 1940.

Day and night this work goes on, dependent upon weather conditions. Tractors are being extensively used and the work goes on by relief armies who operate with the aid of powerful headlights on the machines.

The women of England are again wonderful in the work they are doing. The younger generation, "Farmerettes" so designated, are learning cultivation, fruit culture, poultry husbandry and many other avenues of agricultural service.

The enthusiasm with which all workers are meeting the unusual demand has never been exceeded.

CORRECTION OF NAME.

In our report of the Tomato Field Day at Tatura, Victoria, in last issue, we quoted Mr. W. Gayford, assistant to Mr. F. M. Maher, as attending. This should have been Mr. W. Gayfer, Field Research Officer, and not Mr. Gayford of the Melbourne office of the Department of Agriculture. We regret this error.

since. During that time he has been a member of Parliament in both Houses, Minister for Lands and Agriculture and Leader of the Country Party. Mr. Willmott also took a keen interest in the fruit industry. He has attended several conferences in the Eastern State as a delegate of the W.A. Fruitgrowers' Association. He was also a member of the Executive of the Primary Producers' Association for a number of years, and was a Justice of the Peace.

Letter to the Editor

The Editor,
"Fruit World and Market
Grower."

Sir,

We were very interested to read the item "Dont's in Spraying" on page 6 of February 5 issue of the "Fruit World and Market Grower."

We would like to comment on the "Dont's" which state that oil and sulphur sprays should not be used within 14 days of one another, and further, that oil and sulphur sprays and oil and acid lead arsenate sprays should not be used in combination. During the long period of years in which we have been marketing spraying oils, a considerable amount of experience has been gained, and we think that the "Dont's" issued by the New Zealand Department of Agriculture need some qualifica-

tion, particularly as they relate to Australian conditions.

There are, for instance, several grades of mayonnaise spraying oils available on the Australian market which are used efficiently and successfully in conjunction with lime sulphur. The time of application of the combination sprays is restricted of course, usually from true dormancy to the early pink tip stage with Apples, depending on the type of oil and the concentrations used. The fact remains, however, that such combinations can and are being used.

We often wonder how long it is since the origin of the theory that oil and lime sulphur sprays should never be used in close proximity. Such a wide statement does not seem to be substantiated in fact, although we

do realise that there are many conditions under which it is dangerous to use these sprays at close intervals. We are reasonably sure, however, that the authors of many of the statements have never themselves experimented with the sprays, but have relied very largely on the opinions expressed by somebody else. As this matter is an important one, however, we may be able to throw more light on the question at some time in the future.

On the question of the combination of Whitespray with acid lead arsenate, we might mention that one of our recommended codling moth programmes has, for years, been based on such a combination, and when making this recommendation, it was realised that virtually the whole of the lead arsenate sold in Australia is of the acid type. The Victorian Department of Agriculture recommends similar combination

sprays for certain districts, while the addition of one gallon of Whitespray per 100 gallons lead arsenate mixture for codling moth control is advocated by the New South Wales Department of Agriculture. This latter recommendation is, in fact, embodied in your article "Fruit Pests and Sprays" on page 5 of the same issue.

The above is written in the hope that the comments made will be of value and, as our policy is in line with your own—that is, of maximum assistance to the growers, whether given directly or indirectly—we hope that you will call on us for any service which we may be able to render.

Yours faithfully,

For the Shell Company of Australia Ltd.,

(Signed) F. E. KING.

17/2/41.

APPLES IN BREAD.

Another Use for Surplus Fruit.

THE USE OF APPLES in bread-making is reported upon by J. G. Mallock in "Scientific Agriculture." Three methods of use with flour are quoted.

In the first place an Apple sauce was employed cooked until all the added and part of the natural water had been evaporated. In the second experiment, what is known as Apple pomace, that is, the dried flesh after the juice has been pressed out, was used; and in the third the juice extracted during the pressing was added to the dough.

It is rather interesting to report that the addition of the raw Apples gave much larger loaves than the cooked fruit and all gave larger loaves than when no Apples or Apple juice was added at all. Where the Apple juice was added a much whiter loaf was produced which kept better than the loaves to which no Apple juice had been added. The addition of Apples in any form to the flour when making bread does add a very pleasant flavor, and the toast from such bread is particularly palatable.

Apple bread may easily become a speciality of the war and should prove popular to the public and profitable to the baker.

APPLES FOR COWS.

Recent tests in U.S.A. show that sliced or chopped Apples are good feed for cows. The dry matter of Apples has approximately the same feeding value as good Maize silage. Twenty lb. per day is recommended as an "appetiser"—after milking, so avoid any abnormal flavor in the milk.

For Perfect Performance Excellent Starting Quick Acceleration Maximum Power and Highest Economy Change to **WARATAH** **MOTOR SPIRIT**

It gives you those EXTRA MILES for LESS COST and NO WORRY

**NO MOTOR SPIRIT ON THE MARKET
CAN GIVE BETTER PERFORMANCE
IN YOUR ENGINE OR BE OF A
HIGHER QUALITY THAN WARATAH**

NEPTUNE OIL CO. PTY. LTD. (Incorporated in N.S.W.)

THE CITRUS INDUSTRY

Victorian Citrus Association Conference

SUCCESSFUL YEAR REPORTED — 1940 A YEAR OF RECORDS — PUBLICITY PROGRAMME APPRECIATED — QUESTION OF FUTURE PLANTINGS.

THE 20TH ANNUAL conference of Victorian Citrus Growers was held at Temple Court, Melbourne, on February 12, when Captain D. B. Halhed presided over a representative gathering which included the following delegates: R. D. Hollins (Red Cliffs), S. P. Taylor (Curlwaa), P. Rossiter (Ngawe), L. F. Edwards (Cobram), P. Cobbett (Bamawm), H. Wormwell and A. E. Cameron (Mildura), D. J. Walters (Murrabit), and W. Sawyer (Coomeealla), Messrs. A. W. Schwenne- sen, general manager, and G. E. K. Kerr, market manager and publicity officer represented the Central Citrus Association. Mr. J. L. Provan attended, representing the Department of Agriculture, and Dr. S. J. Cantor was the guest speaker.

In reviewing the activities of the Association, Capt. Halhed stated that the past year had been one of records. Agents at Melbourne had handled a record quantity of fruit. The quantity sold to N.Z. constituted a record since the lifting of the embargo, and this despite the fact that they were unable to sell any Navels. Factory sales were of greater volume than ever before. Factory Lemon prices reached an all-time high level, and the factory Orange price was certainly the highest that has been obtained in recent years.

Value of Publicity.

The publicity service played a big part this year in assisting

in the disposal of a crop of record proportions at reasonable prices. The publicity service was also supported by all other growers' organizations, even though they are not whole-hearted supporters of the Association.

Continuing, Capt. Halhed stated:—

"In connection with the increasing production in Victoria and S. Aust. and the increased quantities of fruit which the Melbourne market may have to absorb in future, an aspect which is causing uneasiness is extent to which some of our Southern districts are being forced to seek other outlets for much of their fruit. Fortunately during the past year there was a light crop of Oranges in N.S.W., and this enabled growers in these districts to dispose of big proportions of their crops in the Sydney market at prices considerably in advance of those they would have been able to obtain in Melbourne.

"Whether this same opportunity is likely to exist when we strike our next big crop year is a matter for speculation. There seems to be little doubt but that production in N.S.W. is declining. If this is so, the practicability of arranging an extension of our organised services to cover the Sydney market is a question which deserves investigation. The matter is, however, one that calls for interstate co-operation.

Question of Further Plantings.

"With regard to the further development of the industry, the question of further plantings is receiving some attention in the Mildura district and in S. Aust. Furthermore, when the war is over and returned soldiers have to be repatriated, the Governments will turn their attention to the possibilities offered by land settlement.

"The questions of whether there is room for expansion of this industry, where further plantings should take place, vitally affect those at present engaged in citrus production.

"It is our intention to introduce this as the principal subject for discussion when we next meet representatives of organizations in S. Aust. and the M.I.A.—probably in April of this year; everything possible will be done to prevent a recurrence of the mistakes of the past."

Marketing Report.

Mr. G. E. K. Kerr, market manager, made a report upon the Melbourne market in which he stated that the chief characteristics of the Navel crop was the preponderance of very small sizes. Owing to the cumulative effect of the Association's publicity, the additional quantity of fruit received did not prove beyond the capacity of the Melbourne market to absorb at better prices than were received in 1938, the aggregate wholesale value was higher than in 1939, and the average quality was of better average size compared with 1938. Valencias were below the average quality and condition of the early consignments.

Record Murray Area Crop: Following the lightest citrus crop since 1929, in the Murray citrus areas, the 1940 season

provided the biggest aggregate yield in these areas in the history of the industry. Abnormal weather conditions during the critical growing periods in the last three seasons have been responsible for the widest fluctuations in yield for the districts whose main outlet is the Melbourne market. The previous record crop was in 1938, and progress reports would indicate that 1941 will continue the alternation in yield, the prospects being for a light crop. The greatest increase in these areas last year was in South Australia. The aggregate Mildura crop was only a little heavier than in 1938 and in some of the other areas the 1938 total was not reached. Net wholesale arrivals, after deducting factory, export, private sales and transshipments during the period compare as follows with the three preceding seasons:—

Arrivals at Melbourne: During 1940, 583,000 bushels were received in Melbourne market. The origins were: S.A. 310,000 bush., Mildura area 204,000 bush., other Vic. areas 61,000 bush., N.S.W. and Queensland 8,000, of which Association agents handled 64 per cent. This total compared with 386,500 bush. in 1939, 480,700 in 1938, and 400,500 in 1937.

Effect of War News: To add to the difficulties of marketing pale and small Oranges, news from the war zones in Europe exercised a depressing effect on trade in the early part of the season. As the war spread the status of a big section of retail distributors came into question, and for a period many retailers of foreign race or descent were too unsettled as regards the future to purchase their normal requirements. Although expanded war work reduced the number of unemployed, enlistments for military service lowered the spending powers of many families, and there was a call on

Blyth's "BLUE BELL" Quality Sprays

MADE IN AUSTRALIA

For Over Twenty-five Years "BLUE BELL" Arsenate of Lead has Proved a Faithful Friend to Growers.

Extract from "Better Fruit" (U.S.A.), Spraying and Pest Control Edition.

CODLIN MOTH CONTROL

By Arthur D. Borden, University of California.

"LEAD ARSENATE is our standard spray material to-day. None of the many substitutes which have been tested have proved to be as toxic and effective in control."

Arsenate of Lead (Paste or Powder), Lime Sulphur, Special Copper Mixture (Fungicide), Spray Spreader, White Oil, Nicotine Sulphate, Red Oil, etc.

Blyth Chemicals Ltd.

31 Queen Street - Melbourne
Phone MU 4756

INTERSTATE AGENTS—

Tasmania: W. D. Peacock & Co. Ltd., Princes Wharf, Hobart. H. Jones & Co. Ltd., Charles St., Launceston. New South Wales: Lanes Ltd., 69 Abercrombie St., Sydney. Queensland: A.C.F. and Shirleys Fertilizers Ltd., Brisbane.

South Australia: George Wills & Co. Ltd., Gilbert House, Gilbert Place, Adelaide. Western Australia: F. H. Faulding & Co. Ltd., 313 Murray Street, Perth.

Works: PRAHRAN GROVE, ELSTERNWICK, VICTORIA — LF 1468

Remember !

THE NEXT TIME YOU SPRAY

Use

“VALLO”

Orchard Sprays

Proved the Best

Highest Grade and Purity

Manufactured in Australia by

VICTOR LEGGO & FARMERS Ltd.

222 Queen Street, Melbourne

Phone M 3344

P.O. Box 508H

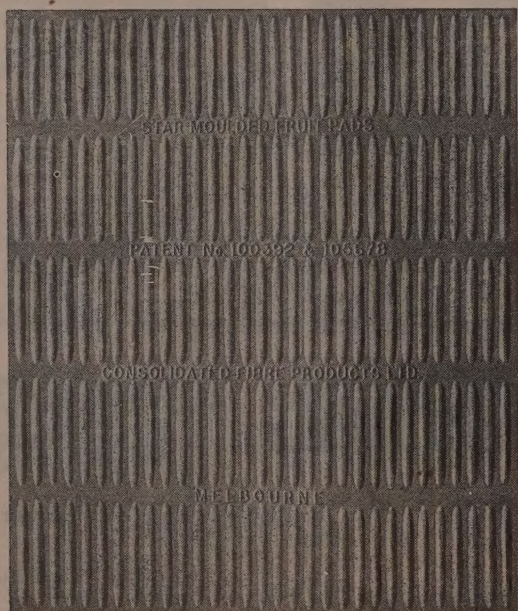
Supplies Obtainable All Stores

Better Packing — Bigger Profits

Use—

“Star” MOULDED FRUIT PADS

(Patent)



Moulded corrugated pads are the greatest advance ever made in fruit packing. They are resilient, odourless, moisture-proof. They act as a cushion and give better air circulation thus preventing damage to the fruit whilst in transit or in Cool Store.

SIZES:—12 x 6, 13½ x 6, 12 x 14, 17½ x 8, 17½ x 11.

“STAR” MOULDED FRUIT PADS are made in light grey or royal blue. These colours are fast dyes and will not taint the fruit.

PRICE LISTS UPON APPLICATION.

Sole Manufacturers:—

CONSOLIDATED FIBRE PRODUCTS LIMITED

321 William Street, Melbourne, C.1.

every citizen to save for the additional war effort. To meet the situation the general advertising out of a specially augmented fund was begun much earlier than usual. The one favorable circumstance at this stage was that vegetables were available at prices that enabled the average housewife to obtain her requirements for a sum that left an appreciable margin for the purchase of Oranges and other fruits. By mid-season, the market had settled down to normal.

Although complete satisfaction with the present system cannot be quoted, the present system of selling and distribution is reasonably satisfactory and should be carried on until or unless it is practicable to change the method. Mr. Walters suggested that the Association should study all angles with a view to effecting improvements. Mr. Cameron moved that the conference expresses appreciation to accredited agents for the excellent job which they did in handling the record crop in the past season. Carried.

Publicity.

Mr. Kerr tabled a report upon publicity which showed that £1,590 had been expended as compared with £1,129 in 1939. Of this, only £10 could be questioned as one piece of literature designed for Italian retailers was withdrawn upon Italy entering the war. The main items of expenditure included newspapers £618, radio £372, hoardings £226, posters £164, and research £58. He submitted that the increased expenditure was warranted by results and that this department should be carried on.

Publicity expenses were largely met by contributions amongst which were: Murray Association £400, Queensland £33, Murrabit £100, Cobram £123, Barham £40, smaller donations £105, and V.C.C.A. levies £706. The Association is planning new avenues of publicity during the coming year.

Average Prices.

The following average prices, by varieties, all grades and sizes received from Victoria and border areas from April to December, 1940, is shown, with the percentage of fruit handled by the Association in brackets and the past four years compared:—

	1940	1939	1938	1937
Navels (56.2)	7/7	8/-	6/11	7/-
Mandarins (5.6)	8/8	10/6	7/9	7/9
Lemons (4.8)	12/2	8/9	6/9	6/4
Grapefruit (7.7)	10/6	10/3	8/3	7/4
Commons (3.5)	6/5	8/7	6/5	5/10
Valencias (22.1)	8/3	12/11	9/4	8/7

When it is considered that in pre-organisation days, Melbourne, with 75 per cent. of its present population, could not absorb, without serious dislocation, 300,000 bushels of Oranges from all sources, the benefits of organised market can be appreciated. Although, by reason of its voluntary basis, the marketing organisation does not com-

mand much support in some areas, it has an effective control of more than 80 per cent. in the districts supplying the bulk of the main season fruit. This control enables it to stabilise the general citrus market position in view of the competition between all sections of the wholesale trade for supplies. Such a result would not have been possible without standardised grading according to the trade requirements; the maintenance of supplies in accordance with the volume of the crop; the control of prices to ensure stability of purchasing and confidence in forwarding; publicity to encourage increased consumption; the co-operation of the Association's wholesalers on the market; and the active support of growers, packers and district and central association executives.

Exports to New Zealand.

During 1940 a total of 193,482 cases of citrus were shipped to N.Z. This was less than in 1939, except for Grapefruit. Of this total V.C.C.A. supplied a substantial increase on the previous year, in fact a record contribution by the Association. The figures for all citrus exports to N.Z. were:—

	Or'ges	Lem.	Grape-fruit
N.S.W. . .	89,491	2,287	1,676
S. Aust. .	69,337	637	578
Victoria .	28,569	—	907

Total, 1940 187,397 2,924 3,161

Total, 1939 215,560 7,943 2,997

The quality was well up to standard and no complaints were registered regarding condition upon arrival.

Cases: Owing to the difficulty in obtaining 1½ bushel export cases, bushel cases were permitted for a time. A resolution was adopted that the conference approves of the use of bushel cases and will endeavor to secure the approval of New Zealand for this size for export shipments.

California produced 24,640,000 boxes of Valencia Oranges in 1939, the third largest crop in its history. The Lemon crop created a new record, with 11,700,000 boxes. The best previous crop was in 1938, with 11,322,000 boxes.

(Citrus Notes continued on page 21.)

Officer (to couple in parked car): Don't you see the sign, "Fine for Parking?"

Driver: Yes, officer. I see it and heartily agree with it.

A citrus laboratory has been successful in extracting oil from Grapefruit seeds.

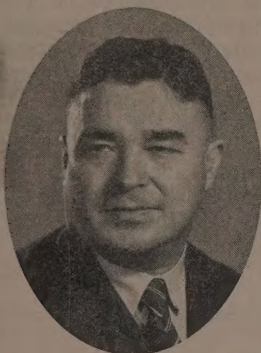
Apple and Pear Acquisition

"A War-time Necessity," States Assistant Minister for Commerce

LOSS OF EXPORT MARKETS AFFECTS OTHER INDUSTRIES ALSO.

In a broadcast speech from Sydney to launch the 1941 Apple campaign, the Assistant Minister for Commerce, Mr. H. L. Anthony, stated as follows:—

In the years before the war, we were able to export that portion of our primary products which we could not use ourselves. More than 90 per cent. of Australian exports went to the United Kingdom. Huge quantities of meat, dried fruits, wine, eggs, butter, bacon, cheese and fresh fruits were annually shipped overseas.



Mr. H. L. Anthony, M.P.,
Assistant Minister for Commerce.

From the proceeds of such sales abroad we have been able to establish funds in London, a National Credit Account. This enabled us to meet our international commitments and to pay for the large volume of manufactured goods which our needs required us to import.

This disposal of our surplus clears our home market of excess supplies, for glutted markets are ruinous to primary producers.

Apples present one of our most immediate and acute problems.

Wine is another. When I think of the wine problem I do not visualise merely liquid in bottles and barrels. I think of thousands of acres of vineyards in different parts of the Commonwealth—of vines heavily laden with Grapes. There are more than a thousand returned men settled there with wives and children. In peace time almost half of Australia's wine was for export.

To-day that export of both wine and Apples to U.K. has completely ceased. Other exports, such as mutton, lamb and pork have had their quotas further reduced.

Britain needs foodstuffs, but we have not enough ships to send everything she used to buy.

She needs all the butter we can produce, cheese, bacon, dried eggs, dried milk, and beef. With mutton we have a surplus in Australia which it is not possible to export; there is no over-supply of beef.

The people here should use more of our own fine fruits. We produce in Australia an average crop of about 11 million bushel cases of Apples every year. Tasmania has an annual crop of about 4½ million bushels. About 25 per cent. of the entire income of Tasmania comes from Apples. Throughout the Commonwealth the livelihood of nearly 100,000 persons depends on the Apple and Pear industry.

Of the 11 million bushels of Apples produced, we used about six million cases ourselves and sent 5,000,000 cases overseas.

This year, with the exception of a small quantity to the East, there'll be no export. The product of the labor of almost half the Apple orchardists in Australia has lost its market. It would be much the same as though half the employees of some of our largest secondary industries were suddenly thrown out of work.

There are other costs besides those of the actual production of the fruit, picking and packing and grading, cases, paper and nails, freight and handling. The money to pay for these can only be found either by selling the Apples at a reasonable price or from the pockets of the taxpayer through Government subsidies.

The Apple and Pear Board has a twofold obligation. One, to make good quality Apples available at a reasonable price. Two, to realise prices which will save the taxpayer and the Government.

The Commonwealth Government has acquired the Apple and Pear crop, not because it wanted to, but because it accepted the great responsibility imposed upon it by this war-time problem.

The Acquisition Scheme has critics, but I feel that most of such criticism is based on incomplete knowledge of the facts.

Our choice was either to control the export surplus flood which would have deluged the home market, or to allow chaos to reign. Chaos must result if we permitted each grower and each State to fight it out for the markets available in an orgy of cut-throat competition. We have chosen the more difficult path of control.

The guaranteed price may not be a high one—but under the circumstances, it is a fair one. It was determined only after lengthy consultations between representatives of the growers, the State Governments and the Commonwealth.

In a climate like ours, especially in the Summer time, we ought to be using much more

fruit and fruit juices of all kinds than we do.

There is one way in which every one of us can help the man on the land, and at the same time the national effort. That is by making every effort to consume the products of our own country.

The Apple-growers are worth helping; they are a hard-working loyal section of our community.

:: :: ::

Deputy Chairmen.

The appointments of deputy chairman of State Committees under the National Security (Apple and Pear Acquisition) Regulations were announced. They are: Queensland, Mr. Y. F. Jesser; New South Wales, Mr. C. G. Savage; Victoria, Mr. N. W. Fairless; South Australia, Mr. A. G. Strickland; Tasmania, Mr. R. W. Humphreys.

:: :: ::

For and Against.

The Fruitgrowers and Primary Producers' Defence League has been active.

Meetings have been held in several centres.

At Frankston (Vic.) in early February, resolutions were carried: (a) requesting the Federal Government to repeal the Acquisition Regulations forthwith, otherwise growers would be compelled to take drastic steps to exert their just rights. (b) That because of the failure of the Victorian Minister of Agric. (Mr. Hogan) to attend growers' meetings, the Commonwealth Agricultural Council demand his resignation.

A deputation waited on the Assist. Minister for Commerce (Mr. Anthony) on February 12, when Messrs. F. A. Bloom, Thos. Rose and others spoke vigorously against acquisition. Mr. W. H. Everard, M.L.A., said that under acquisition, the bulk of the growers were nearly insolvent. Mr. Isaac, M.L.C., stated the fruitgrower was subject to inequality of sacrifice.

Replying, the Minister said that because the export market had disappeared, the Government had been asked to protect growers. Without control there would be collapse of the industry and chaos.

At a deputation to Senators Keane and Cameron on February 25 the Defence League speakers included Mr. A. F. Bloom (Mitcham), Mr. E. W. Buttle, Mrs. Serpell (Doncaster), Messrs. T. Rose (Vermont), H. N. Read (Wonga Park), A. J. Noble (Tyabb), V.

PATENTS
GEORGE A. UREN
PATENT ATTORNEY
"HENTY HOUSE," 499 LITTLE COLLINS ST.
MELBOURNE.

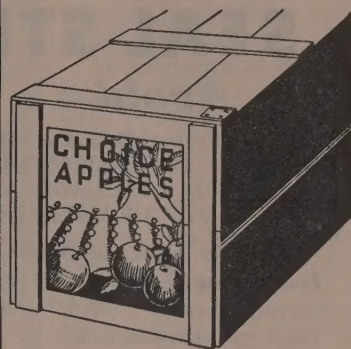
FRUIT BUYERS

LEMONS, ORANGES, GRAPEFRUIT,
PEARS, PEACHES, APRICOTS,
BERRIES, CHERRIES.

BROOKE'S LEMOS LTD.

69-79 WHITEMAN STREET,
MELBOURNE SOUTH, & C.S.
— Telephone, M 3141. —

CASE LABELLING



USE THE PASTE THAT
KEEPS THE LABELS ON

DAVIS
444

POWDERED ADHESIVE

Economical to use, easily prepared, easily applied, quick drying, non-staining, non-corrosive.

All particulars about

DAVIS 444
ADHESIVE

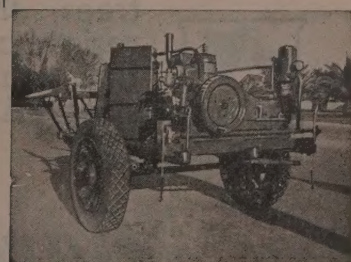
from

Davis Gelatine, Melbourne.

Supplies obtainable from
hardware, paint and other
stores.

— THE —

BAVE-U
POWER SPRAYER



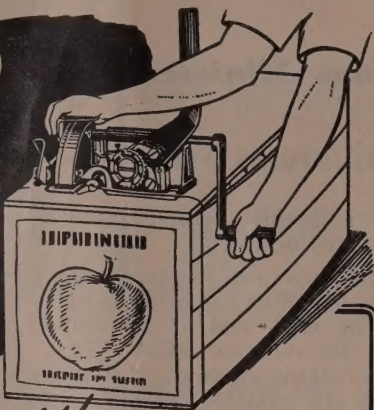
All models can be fitted with
pneumatic tyres at little extra cost.

Write for Particulars

Russell Burrows
Pty. Ltd.

Box Hill, E.11 Victoria

**BOUND
to arrive
SAFELY**



if sealed with
**GERRARD WIRE
SEAL STRAPPING**

Avoid—

LOSS IN TRANSIT
UNSIGHTLY DAMAGED PACKAGES
PILLAGE AND ULLAGE
CLAIMS AND REPACKING

By Using GERRARD WIRE STRAPPING.

Fruit Packing Charts for APPLES, PEARS and CITRUS available.
Post Free on application.

Prices and particulars from—

GERRARD WIRE TYING MACHINES CO. PTY. LTD.
18-24 IRELAND ST. WEST MELBOURNE

Sydney, Melbourne, Adelaide



Perth, Hobart, Launceston

Time Marches On!

THE approach of Autumn, leaves changing color and falling, heralds the advent of yet another dormant season's spray programme. Gargoyle RED Spraying Oil has been proved over the years to be the best dormant season oil spray yet produced. It not only kills and stifles sleeping "bugs" but improves the trees, their fruit and their resistance to disease. It will pay you to order your supplies EARLY!



Gargoyle
RED Spraying Oil

H. Clark (Pakenham), and M. Elwood (Batesford). Vigorous speeches were made condemning the acquisition plan "lock, stock and barrel," and also pointing out some administrative defects. A return to open marketing was requested with bonuses for such growers as needed them.

Mr. H. W. Soothill, Deputy Chairman, Apple and Pear Marketing Board, replied that the suggested bonus of 2/6 a case would involve the Government to the extent of £1,500,000, and still retain the problem of the disposal of the fruit. He believed that 75 per cent. of the growers throughout Australia favored acquisition.

A resolution was carried requesting the Federal Labor Opposition to press for the appointment of a Select Committee of Enquiry.

Test Case Proposed.

The Secretary of the Fruit-growers and Primary Producers' Defence League (Mr. E. W. Buttle) states that counsel's opinion had been obtained to the effect that acquisition regulations are unconstitutional, and that members of the League had decided to support the N.S.W. growers financially in testing the case before the High Court.

The Defence League arranged for several members of Parliament to visit orchards at Vermont and elsewhere to obtain first-hand information regarding the effect of acquisition and the losses incurred by growers.

ON THE OTHER HAND, the Secretary of the Portland Cool Store, Mr. E. W. Hedditch, writes severely criticising as parochial the action of metropolitan growers in their crusade against acquisition. The plan was enacted at the request of the Australian growers.

Harcourt.

Cr. J. B. Wairren presided at a meeting of over 100 district growers on February 26, when a resolution supporting the present acquisition plans was carried on the motion of Mr. H. Ford, seconded by Mr. W. Eagle.

In the discussion it was stated that Harcourt growers had emphatically sought the enactment of the acquisition plans on the lines now operating.

Mr. H. W. Soothill, Deputy Chairman of the Apple and Pear Marketing Board, detailed the procedure leading up to the Government's acceptance of the plans. Matters connected with the actual handling of the crops were raised and discussed.

GOULBURN VALLEY GROWERS FAVOR ACQUISITION.

The Editor, "Fruit World."

Sir,

Criticism of the Apple and Pear acquisition scheme by Mr. Hollway, leader of the United Australia Party, was based, so we are told, on a letter from a Goulburn Valley grower to the effect that growers are being paid £7 per ton to bury their fruit under the supervision of Inspectors of the Department of Agriculture, which, to say the least of it, is an absurdity.

In the first place there is no such thing as a payment of £7 per ton, payment being at per bushel, according to size and quality, and secondly, no grower has had to bury his fruit. He was not at liberty to sell the fruit, but can feed it to stock.

The difficulty with the Pears was brought about by the abnormal crop and lack of sufficient cool storage space for fruit owing to the cool stores being filled with other primary products.

The Northern Victoria Fruit-growers' Association, which represents 98 per cent. of the growers in the Goulburn Valley, unanimously agreed to the acquisition plan, and with representatives of other fruitgrowers' organizations throughout the Commonwealth, took part in the Conferences which asked for and assisted in the formation of the scheme.

Despite a noisy minority of growers we are satisfied that there is general agreement among producers regarding the

necessity for acquisition because of the cessation of export.

My Association commends the Commonwealth Government for its action in making the acquisition plan possible, and our attitude towards the Apple and Pear Marketing Board is to assist and co-operate wherever possible in carrying through a most difficult task.

On behalf of the Executive of the Northern Victorian Fruit-growers' Association,

(Sgd.) W. P. CORNISH.
Secretary.

Ardmona, 28/2/41.

Mr. H. Vallenge, Bacchus Marsh, writes supporting the acquisition plan, seeing otherwise only chaos, because of the 5,000,000 to 6,000,000 bushel surplus. He states, "While the Board was not a model of efficiency in its first year, it would have done better had all the growers pulled their weight. I heard of growers criticising the Board when they had been selling their fruit outside the scheme at prices made possible only by its operations."

**POULTRY IS A PROFITABLE
SIDE LINE FOR
ORCHARDISTS.**

Read the . . .

**"Australasian
Poultry World"**

SIXPENCE PER COPY.

Box 1944, G.P.O., Melbourne.

Apple and Pear Acquisition (Continued)

MEETING AT FRANKSTON.

At a meeting at Frankston, Victoria, on February 27, Cr. Wells presided over an attendance of about 200 fruitgrowers and others. There were also present Senators Keane and Cameron, Mr. W. H. Everard, M.L.A., and many leaders of the industry.

The meeting was of a lively character, there were many interjections, the chairman having frequently to appeal for order.

Mr. E. W. Buttle, Secretary of the Fruitgrowers and Primary Producers' Defence League, said there were too many Boards. In times of glut of any primary produce, the public got the goods cheaply and surpluses were cleared. But producers averaged out over the years. He urged that the Apple and Pear Board be wiped out, leaving growers free to market fruit as before.

Messrs. H. N. Read, T. Rose and V. A. H. Clark gave instances of practical disabilities under which they were suffering, including low prices for certain varieties and picking instructions for unsuitable times. Mr. Rose advocated kerb markets.

Mr. M. Elwood (Batesford) said present prices were unpayable, people he knew were eating less fruit.

Mr. W. H. Everard, M.L.A., advocated kerb markets and licenses for growers to sell fruit.

Senator Keane said the Labor Party favored orderly marketing, but from statements made to him he would endeavor to have a Committee of Enquiry appointed to examine the operations of the Apple and Pear Board.

Senator Cameron stated that the present Government was supported by big monopolies—sugar, meat, tobacco, the B.H.P., etc. The Apple and Pear regulations were a "ramp"; growers should organise.

Cr. J. B. Warren said that a meeting of 100 growers at Harcourt on February 27 had unanimously favored the acquisition plan.

Voices: "You are squibbing!" "We won't give you a hearing, boy!"

Continuing, amid interruptions, Cr. Warren said that despite the difficulty of low prices for some varieties, he had been convinced that a control plan was necessary for the industry as a whole.

Mr. Charlesworth stated he was a working carpenter; he opposed the Apple and Pear Board, also other Boards, controls of foodstuffs and monopolies generally. He believed in Trade unions, but attacked the policy of the Labor Party.

Cr. J. E. Collier (Lilydale) said the Egg Board was one of

the finest institutions in the country. (Voices: No! No!) But he believed a majority of the fruitgrowers in his district opposed the Apple and Pear Acquisition plan.

The chairman introduced Mr. H. W. Soothill, Deputy Chairman Apple and Pear Marketing Board, and asked the audience to give him a good hearing.

Mrs. Serpell: Do you think he deserves it?

The Chairman: Yes. Definitely. You want to hear both sides of this question.

Mr. Soothill said he wished there had been a poll of the growers in Australia re acquisition as he believed the vote would have been overwhelmingly in favor. He detailed the procedure re growers' conferences leading up to acquisition. Alternatives had been suggested, but on detailed examination were not found to be workable; at present wholesale prices Apples should sell at not more than 3d. per lb. retail, which compared more than favorably with other fruits and foodstuffs. He answered many points raised by interjectors.

Mr. W. P. Hutchinson (chairman Victorian State Committee Apple and Pear Board) said that this season 78,000 cases of Apples had been sold at a net average wholesale price of 4/11½. Retailers could not complain of paying high prices, nor were prices to the public of 4d. per lb. and higher justifiable. He indignantly denied that the Board was a "ramp"—but he had heard of politicians being associated with political ramps.

Mr. W. P. Mair, amid heckling, stated he believed the vast majority of growers favored acquisition—even on the Mornington Peninsula; as a commercial pro-

ducer of Apples he would say that at 3/- a bushel net at the orchard, fruitgrowing was payable. In the past, Metropolitan growers had been successful only because of the exports from country centres. The yearly consumption of Apples in Australia could be substantially increased by the co-operation and goodwill of growers and the public.

Mr. Lillywhite (Somerville) said he believed in acquisition as a war measure. Despite some varieties compensated at 1/- a bushel, 85 per cent. of the Apples on the Peninsula were in group 1.

Mr. J. M. Atkinson (Henry George League) attacked Boards generally, also the Sugar Control and other monopolies.

In answer to Mr. Handasyde (Wantirna), Mr. Soothill said that the Government had given careful consideration to proposals for taking care of the export fruit and leaving the Australian market free for normal sales, but such were found unworkable.

The cost last season would be under the provided sum of £750,000. This cost was influenced by the drop of Apples (in the 1940 heat wave) on which advances had been paid (estimated at amount of £350,000) and by the payment of the extra 1/- a case not provided for in the original budget—£300,000.

It was well after midnight when Mr. Lewis (Pearcedale) moved "that this meeting requests the Federal Government to subsidize export growers so that they can live, and abolish the present scheme and allow normal marketing to go on in the ordinary way."

Mr. H. N. Read (Wonga Park) seconded.

ALTERNATIVE TO ACQUISITION.

The "Fruit World" Invites Correspondence.

Recently Mr. R. A. W. Bailey, of Narre Warren, Vic., a well-known grower, submitted proposals to replace acquisition. These were published in this journal.

What do growers think of these proposals? Are any other suggestions forthcoming?

These pages are open for constructive ideas.

At meetings of the Victorian growers proposals have been put forward for the Government to take care of the export surplus and leave growers free to market their fruit as before; also for growers in Tasmania, Western Australia and elsewhere to receive bonuses according to their needs.

Correspondents are invited to develop these ideas in detail or to submit others.

Statements have been made that the majority of Australian growers are in favor of acquisition under the stress of war conditions.

A poll of the growers in the Commonwealth would decide this matter.

What do our readers think?

Mr. A. J. Noble (Tyabb) spoke in support. On a show of hands the chairman declared the motion carried.

STANDARDISED SPRAYING MATERIALS

- ALBOLEUM
(White Oil Emulsion)
- ARSINETTE
(Lead Arsenate Powder)
- DRYMAC
(Derris Dust)
- COLLOIDAL SULPHUR
(In semi paste form)



This Trade Mark is your safeguard.

- BORDINETTE
(Copper Fungicide)
- OSTICO
(Sticky Tree Banding)
- OVICIDE
(Tar Distillate)
- NICOTINE SULPHATE
(Guaranteed 40%)

Obtainable at all Fruitgrowers' Associations, etc.

Sole Manufacturers:-

WILLIAM COOPER & NEPHEWS (AUSTRALIA) PTY. LIMITED
9-11 O'CONNELL STREET, SYDNEY

Apple and Pear Acquisition - (Continued)

New South Wales.

During February there was some adverse press criticism in N.S.W. regarding the acquisition plan.

Complaints came from Armidale regarding slowness in paying for fruit delivered.

Mr. J. H. Yeomans, of Arding, said 1,000 cases had been delivered in January, and although payment had been promised within 14 days, nothing had been received up to February 20.

Mr. L. H. Goode (Arding) stated he had grubbed out 4 acres of young trees—more would be grubbed when the crops had been picked.

However, the early press criticism was followed by favorable comments, it being pointed out that the plan protected N.S.W. growers from unregulated and glut supplies from other States on the Sydney market.

Housewives Will Assist.

Mrs. Eleanor Glencross, President, N.S.W. Housewives' Association, advocated kerb

markets in each suburb where women could purchase Apples in $\frac{1}{2}$ case and case lots. She was prepared to take orders for any surplus above regular deliveries to fruiterers. This would not injure shopkeepers, because there was always a trade for picked fruit in small quantities.

Opinions at Griffith, N.S.W.

Reports indicate that the acquisition plan is generally accepted by growers as a war measure.

However, Mr. W. Ridley, of Griffith, attacks both the existing social system as well as the acquisition plan. He writes:—

"Why did not the Menzies brain trust start on the B.H.P. first and demand that they deliver their products at about one quarter of its costs... My King Davids, for which I receive 1/- per bushel, will eventually grace shop windows as Jonathans and be retailed at about 12/- to 14/- per case. Why must I take all the risks, cultivate, spray, and

irrigate, for the magnificent sum of 1/- a case? In whose interests are such men as myself, with hundreds of others, forced in to bankruptcy growing fruit that 50 per cent. of the people crave but can't buy? Why are packers allowed all packing costs? Why is it justifiable for all who handle my fruit to make a profit?

"Because the whole system is imposed upon us in the interests of the controllers of finance, whose policy is to compel us to 'fit and limit' our wealth production into their crazy financial system."

Fruit Retailers.

The Assistant Minister for Commerce (Mr. H. L. Anthony) recently warned fruit retailers against obtaining Apples except through the authorised channels, as evasion of the law would be an offence, and lead to prosecution.

The President of the Retail Fruiterers' Association of Victoria, Mr. C. Mawdsley, states

that retailers recognise the effect of the war on the fruit trade; his Association will co-operate with the Board and with the public to ensure most effective distribution.

GREEN MANURE AS SUBSTITUTE.

Shortage of Nitrogen.

WITH THE SHORTAGE of nitrogen supplies owing to the war requirements, the Research Station at Griffith advises a greater use of leguminous green crops.

One type of nitrogen-fixing bacteria lives on the root nodules of leguminous plants, so that the growing of leguminous plants, thus making use of the natural nitrogen-fixing chemical factories, is still one of the most economical ways of obtaining nitrogen for agricultural purposes.

By a good crop of tick beans or cowpeas, as much nitrogen is fixed in an acre of orchard as is in 8 cwt. of sulphate of ammonia.

Not Immediately Available.

All this nitrogen is not immediately available to the trees. It does not become available until the green crop decomposes. However, some becomes available quite rapidly—particularly in the Summer. Even if we only consider half of it is equal in value to that in sulphate of ammonia it is easily seen that the leguminous plant is the cheapest form of nitrogen for the agriculturist.

When land is fallowed, other types of bacteria will fix atmospheric nitrogen, and certain bacteria make nitrogen in organic matter (unavailable nitrogen) available to plants by changing it to nitrate, so that fallowing is another method of conserving agricultural nitrogen and thus economising on the use of sulphate of ammonia. Where sufficient water is available, however, as on the Irrigation Areas, it has no advantage over leguminous crops and has certain disadvantages. It may be pointed out here that if a farmer grows a leguminous crop and feeds it off, a large part of the nitrogen is returned to the soil as urine which is as good as sulphate of ammonia. Generally speaking, sufficient would be returned for a subsequent crop.

Orchardists and others will realise that by the greater use of leguminous green manures and farmyard and sheep manure they are not only improving their own economic position but definitely assisting in the war effort by conserving sulphate of ammonia for industrial purposes.

As green manuring is the cheapest form of nitrogen this should be used as much as possible.

In Preparing Your Bordeaux Sprays Use . . .

ESA BLUESTONE

— Manufactured by —

THE ELECTROLYTIC REFINING & SMELTING COMPANY OF AUSTRALIA LTD.
PORT KEMBLA, NEW SOUTH WALES.

The Right Material for Plant Disease Prevention and Control
GUARANTEED 99% PURITY

GRADES—Mixed Crystals, Fines, Granulated (Snow), Packed in Suitable Containers for Growers' Requirements.

Agents for All States: ELDER SMITH & COMPANY LIMITED, All Capital Cities.

BOOKLET—"Better Yields by Spraying with ESA Bluestone" obtainable on application to Elder Smith & Co. Ltd.

ARE YOU

GRUBBING?

Previous experience had convinced me that to be really efficient a grubbing machine should have ample power and ropes that will meet the heavy demands required of them. I found that shovel and axe work is very costly either by itself or in conjunction with a machine. The machine that offered these features with a host of others, was **THE "MONKEY" GRUBBER.**

It gave me the power of 260 pairs of hands in a simple and compact form; the lever is short, so that I am able to stand firm-footed and get the full stroke. There are two speeds in the machine, as well as an automatic release that allows me to let off a strain, or as the machine will work in any position, it comes in for all jobs that would require a chain block. It is taken to the job on a pair of wheels like a barn truck, and is rigged for work in a few minutes. The ropes are in lengths that I find easy to handle, and each one is fitted with hook and loop couplings, so simple and absolutely IT for effectiveness. The makers have included a sturdy snatch block with a novel method of securing to the ropes, and also a fine type of firm gripping rope shortener. The latter makes it very easy to accommodate the lengths of rope to the tree or stump being pulled, and is quickly released from the rope. The combination of so many time and labor saving features makes the "Monkey" Grubber a superior grubbing outfit.

REMEMBER FOR YOUR GRUBBING THERE'S ONLY

H. H. HINDS,
225 Clarence Street,
Sydney.

A. G. WEBSTER,
& SONS,
Hobart &
Launceston.

TREWHELLA'S



MONKEY GRUBBER

REX ROBINSON,
83 Gipps Street,
Brisbane.

Leading Stores and
Merchants, South
and West Australia.

TREWHELLA BROS. Pty. Ltd. Trentham, Vic.

New South Wales News and Notes

Murrumbidgee Irrigation Areas

Satisfactory Water Storage — Apple and Pear Acquisition —
Record Canning of W.B.C. Pears — Export of Oranges to
New Zealand.

(By Our Correspondent.)

CONSIDERABLE SATISFACTION is felt by all settlers at the present position at the Burrinjuck Dam.

After the early Summer uneasiness on the subject of storage, the remarkable change in the seasonal condition has brought about a position in water storage where the great reservoir now contains as much water as in years when it commenced the irrigation season filled to capacity.

Of particular interest to farmers in general is the opening of country grading and candling floors at the Leeton Cannery. This will greatly stimulate local and district egg production.

Bindweed is again in the news. Considered by the Departmental experts to be a menace to horticulturists, this weed is becoming widespread throughout the Area.

Statements were recently made by the Wade Shire (Griffith) implying that it was useless advising settlers on the eradication of bindweed, as they did not attach much importance to it. Opinions expressed in the Leeton district deplored any minimisation in the possible effect of an infestation, which, while only light at present, can have the most devastating effects in an orchard district if not immediately and effectively ended. Previous statements by the Weeds Officer of the Department of Agriculture, Mr. K. G. Carn, support this view.

The Apple and Pear Acquisition Scheme is working quite

smoothly on the Area, and, with the exception of King David Apples at one shilling per case for fancy grade, growers have expressed satisfaction at the prices being paid.

The Apple crop is of good quality and the Departmental fruit inspectors have remarked on the unusual high colour of the red varieties. Granny Smith Apples of smaller size than 163 count, are not now being forwarded to market. Packham Triumph Pears, with a very heavy crop generally, are of splendid quality.

The cannery season is now in full swing, and a record crop of Williams (Bartlett) Pears has been processed. Peaches are now flowing in and a quantity of Gordo Grapes are also being received. The canning Peach crop is expected to be a heavy one.

Wine Grape growers are pleased to learn that the whole of the present crop, which is expected to be a heavy one, is to be taken by the Griffith District Wineries, at last season's prices.

Hot weather for the past week is favoring the Prune and Sultana growers. Prune drying is well on the way and should provide heavy tonnages. A few growers of the D'Agen variety are expected to harvest nearly three tons to the acre.

Export of Valencia Oranges to New Zealand continues, although the fruit is now greening off considerably. Export to N.Z. means a lot to the Area citrus growers. In fact, the whole State benefits. For instance, the

Griffith Producers alone exported 66,197 export boxes of citrus so far this season, and the release of this quantity of fruit from the local markets must have benefited market values considerably.

Swiftly moving events have brought the plans to make the Murrumbidgee Irrigation Areas an inland centre for food production, storage and distribution, and a reception depot for evacuees from thickly-populated coastal areas into the position of an imminent national project. Viewed from the angle as an evacuee area, the M.I.A. provides a centre to which coastal populations can be moved with ease.

The M.I.A. and the districts surrounding them have all the facilities of production, processing and packing of food-stuffs.

One of the leading Peach growers in the Griffith District has converted his block to permanent clover coverwatered by contour bank flood irrigation. To date good results have been obtained.

Other growers throughout the district are also considering radical changes in irrigation policy.

Experimental work on these lines is being conducted and it is hoped that the results will prove of great benefit to the fruit industry.

CO-OPERATIVE DEVELOPMENTS IN N.S.W.

Farm Buying Project.

THE PURCHASING OF FARMS for producers is the objective of the Far North Coast Development Bureau. The project is an ambitious one, and is on the lines of the successful co-operative home building societies. Farm purchase schemes have been brought forward from time to time on the basis of direct Government finance. The new project is for the purchase of the farms through co-operative societies with a Government guarantee to lenders.

FREE FRUIT FOR CHARITIES.

N.S.W. Government Buys Apples and Pears.

Volunteer Pickers.

CONGRATULATIONS to the N.S.W. Government for its enterprise in arranging for the supply of Apples and Pears to hospitals, orphanages, kindergartens, and charitable institutions.

The Premier of N.S.W., Mr. Mair, stated that as a beginning he planned to obtain the equivalent of 10,000 cases. The N.S.W. Railways were co-operating. Volunteer pickers were being organised; sacks would be used instead of cases. A price was being paid to the Apple and Pear Board in keeping with the circumstances.

It is expected that 50,000 bushels will be utilised in this way.

BANANA CULTURE.

Success by Covering Growing Bunches with Bags.

MARKED SUCCESS has been attained by the covering of Bananas in hessian or paper envelopes. More attractive fruit has been produced, states Mr. H. W. Eastwood, Special Fruit Instructor at Murwillumbah, N.S.W. The fruit on the bagged bunches develops more evenly than on naked bunches. More fruit is produced, of better quality—by far exceeding the cost of the bagging. Though hessian costs three times more than paper, it is cheaper in the long run.

Batlow, 25/2/41.—Mr. A. E. Herring reports as follows:—Pears and Apples: Very heavy crops, quality excellent; a few low-lying spots were hit by frost.

Progressive South Australian Nursery

L. J. WICKS

Phone : F 8108

Highbury East,
South Aust.

CITRUS on Sweet Orange and SEVILLE Stocks

Limited Stock of Robertson Navel

LARGEST STOCK OF STONE FRUITS IN STATE
SPECIALIST IN BUDDED WALNUTS AND ALL NUT TREES.
BLACK ENGLISH MULBERRIES, LOQUATS AND VINES.

New Peaches include BABCOCK and RIO OSO GEM.
30 Varieties of Persimmons stocked.
Grafted Feijoas in several varieties.

All Varieties Grown and Tested in Own EXTENSIVE ORCHARDS Affording Perfect Bud Selection.

WRITE FOR ILLUSTRATED CATALOGUE.

Trade Supplier of Standard and Threequarter Standard Roses

DISPOSAL OF CANNING WASTE.

Various Chemicals Used.

In a paper read at the 1939 Canning Problems Conference in Chicago, Mr. H. H. Danborn, of the National Cannery Association, stated that the disposal of liquid waste from canneries has become a problem that is being faced by the industry. When diverted into streams, it kills fish life and is objected to by rural communities.

Various forms of chemical

precipitation are being tried out and preliminary crushing of large pieces of waste before precipitation is being found to assist the precipitation process. Lime is used largely because of its low cost. The waste is agitated in the tank by motor-driven propellers and after precipitation the liquid waste is discharged on to drying beds. In addition, screens and filters assist in the separation of the liquid from the fibrous waste, the latter being dried and burned.

English can companies are

making a new type of flattened can which will solve the packing transport problem. The cans are printed and cut into shape and packed flat, thus taking only one-fifth of the space of made-up cans. They are re-assembled by machinery at the cannery.

APPRECIATION FROM N.Z.

A New Zealand reader of the "Fruit World," when forwarding his cheque for renewal of subscription, adds:—

"I always look forward to receiving the 'Fruit World' on ac-

count of the many interesting articles concerning the problems confronting the fruit grower, which are varied and never ending. In this district of Central Otago, we have our share of pests and fungoid diseases, but on account of the dryness of our climate, fungoid troubles can be kept under control by the exercise of care in spraying and proper orchard sanitation. Pest visitations have this year taken a big toll of Apricots, and in our district an 80 per cent. loss was sustained."

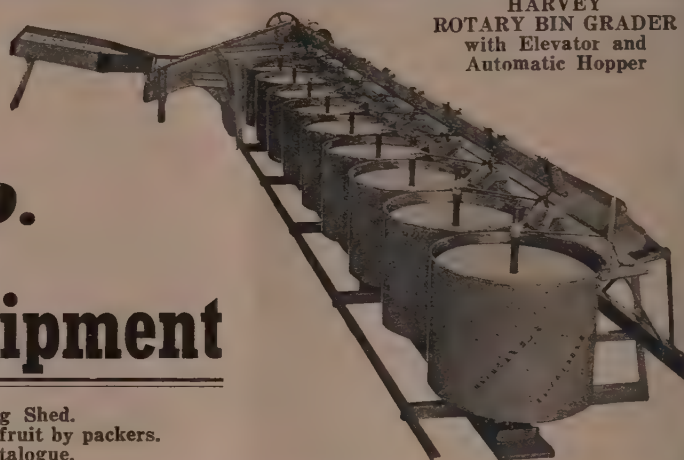
LEADERSHIP

Maintained by

DANIEL HARVEY LTD.

INTRODUCING

Rotary Bin Grading Equipment



HARVEY
ROTARY BIN GRADER
with Elevator and
Automatic Hopper

Made in sizes to suit the Small Grower and the Largest Packing Shed.
Rotary Bins considerably increase the average daily output. No pawing of fruit by packers.
Stem punctures and bruises eliminated. Write for catalogue.

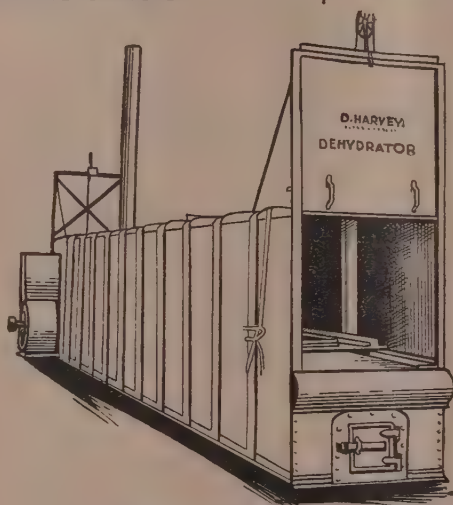
Citrus Graders, Citrus Polishing Machines and Packing House Equipment

BRYTENE PLANTS
CITRUS PROCESSING PLANTS
SORTING TABLES
LIDDING PRESSES

WAXING PLANTS
GRAVITY CONVEYORS
CANNERY GRADERS

CITRUS WASHING & STERILISING PLANTS (Hot or Cold)
COOL STORE TROLRIES AND TRUCKS

DEHYDRATORS
CITRUS POLISHING MACHINES
TOMATO GRADERS
PASSIONFRUIT GRADERS



The "Harvey" Citrus Washing Plants
SAVE SPACE — CAN BE USED WITH HOT OR COLD WATER.

Fruitgrowers —

The "Harvey" Air Re-Circulation Dehydrator

Solves the Problem of Marketing The Fruit Crop

SUCH AS APPLES, PEARS, PRUNES, APRICOTS, PEACHES, SULTANAS, Etc.

It is the best, cheapest, and most efficient type of dehydrator known. Used by all the most up-to-date Packing Houses and Sheds.

Large Output — Economical to Operate

The Fruit is placed in one end and comes out at the other dried to Perfection.

REMOVE SPRAY WITH THE "HARVEY" NEW HORSE HAIR BELT TYPE POLISHING MACHINE.

"HARVEY" IMPLEMENTS Make Good Work Easy



"HARVEY" PATENT OFFSET TANDEM DISC CULTIVATOR: Cultivates right up to the butts of the trees or vines while the Tractor is driven right out in the middle of the row. Proved to be an excellent machine for deeply cultivating heavy irrigation land.

A Harvey Implement for Every Need



"HARVEY" CITRUS DISC ATTACHMENT

WITH HOOD FITTED TO WORK WITH "HARVEY" PATENT OFFSET TANDEM TRACTOR DISC CULTIVATOR.

Cuts out all hand working under citrus trees, and keeps the ground level. Specially designed to work right under the limbs up to the trunks of the Orange and Lemon trees. Will lift limbs loaded with fruit off the ground, cultivating to any predetermined depth, and then gently putting back in position the fruit-bearing limbs without injuring the fruit or fibrous roots. Cuts out all weeds without clogging.

FRUIT GROWERS, VIGNERONS and CITRUS GROWERS — OBTAIN YOUR REQUIREMENTS FROM:—

DANIEL HARVEY LIMITED

Orchard Implement Specialists
BOX HILL, VICTORIA

INTERSTATE REPRESENTATIVES:—

N.S.W.—Tractors & Machinery Pty. Ltd., 131 Palmer St., Sydney.
S.A.—Silbert, Sharp & Bishop, Bunde St., East Adelaide.
W.A.—Paterson & Co. Ltd., St. Georges Terrace, Perth.
S.A.—Cole & Woodham, Box 12, Renmark.

Southern Tasmania—Southern Implement & Machinery Coy., Market Place, Hobart.
Northern Tasmania—Max Geaves, Launceston.
Queensland: Buzacott (Queensland) Ltd., 443 Adelaide St., Brisbane.

The Goulburn Valley (Victoria)

Heavy Canning Season — New
Railway Bridge at Mooroopna —
Grant for Roads — Williams
Pear Losses

(By Our Correspondent.)

THE Shepparton, Ardmona, and Kyabram Canneries are all working to fullest capacity (including overtime) canning Williams Pears and the mid-season Peach crop.

The Ardmona Cannery is having a particularly heavy season, with its cool stores over-taxed. Heavy arrivals of Pears were received during the past few weeks, and growers have now completed their deliveries.

With the high quality of the fruit, the cutters and canners have been able to earn good wages, and are quite satisfied, and a big percentage of the fruit processed is of export quality.

The cannery is working at full pressure, including two Sundays and several week nights, to cope with the big tonnage.

Heavy supplies of mid-season Peaches are now coming forward, and the Sims Cling is just about finished, to be followed by good crops of Golden Queen, Phillips Cling, and Goodman Choice, and then the late varieties of Pullars and Thiele Cling.

The mid-season Peaches are being processed in conjunction with Williams Pears, and it is hoped that the bulk of the Pears will be finished before the heavy rush of the Pullar Cling crop.

The efficiency and smoothness of working of these Goulburn Valley canneries are amazing in the way they handle such huge quantities of fruit. They are of immense assets to the district, and the salvation of the Goulburn Valley fruit growing industry.

A New Railway Bridge at Mooroopna.

The Railway Department are building a new concrete and steel bridge over the Goulburn River at Mooroopna. The new

bridge, when constructed, will be an imposing structure, capable of carrying heavy engines and big loadings without causing concern, and is a symbol of the optimism which prevails regarding the future of the Goulburn Valley and Southern Riverina. The cost of the new structure will be about £25,000. The present bridge, which is a wooden structure, has given many years of useful service, and withstood many floods, but has now become unsafe for heavy traffic.

Grant for Fruit Growers' Roads.

A country Roads Board grant of £400 has been made available to Shepparton Shire for fruit-growers' outlet roads. The Council will be required to spend £100. This is the normal Federal aids constructional grant for these roads.

Williams Pears.

There is a good deal of controversy in the Goulburn Valley concerning the W.B.C. Pear crop this season. Conflicting views are expressed. It is evident, however, that a large proportion of the fruit was not harvested. The rains and the heat filled out the Pears and a much bigger crop came forward than was anticipated. Criticism of the Board and its local agents is freely expressed by some, whilst other growers, including leading men in the industry, are quite firm in their conviction that despite all difficulties and shortcomings, the control system is the only effective method of handling this vast business under war conditions. Probably the canneries were operating cautiously this season in view of marketing difficulties ahead.

Deductions in the assessments were from 20 to 50 per cent. These deductions were for moth injury and other causes. On the balance growers will receive 3/6 per case.



Instructions to Growers.

The following instructions have been issued to growers for the handling of the balance of unharvested W.B.C. Pear crop.

After cannery quotas have been delivered, growers must harvest the remainder of the W.B.C. Pear crop into any type of standard case. No sorting is required. The boxes of fruit are to be stacked together in a convenient place in the orchard, each type of box being stacked separately.

Wherever possible boxes will be supplied for the purpose, but it must be understood that growers are responsible for any boxes that are destroyed by the growers and the boxes returned immediately unless otherwise instructed.

Immediately harvesting is completed, growers must notify Inspectors, when arrangements will be made for an assessor to inspect and assess the fruit in accordance with the Regulations.

The statement published in the public press that growers were paid £7 a ton to bury their fruit was officially denied, as was also a statement that growers were not permitted to feed their own livestock with fallen fruit.

DOOKIE AGRICULTURAL COLLEGE.

"A satisfactory year" is reported by the Principal, Mr. G. B. Woodgate, B.A., Dip.Ed. The

dux was R. V. Harrison, closely followed by R. T. Milligan and G. D. Brooke.

NEW PEACH VARIETIES.

Fruitgrowers and canners in U.S.A. are continually looking for new varieties of fruits which may better meet local and national requirements.

At Riverside, Southern California, there is the important experiment farm which, though known as Citrus Experiment Station, investigates many types of fruits other than citrus.

Five new Peach varieties (four Freestones and one Clingstone), especially adapted to regions of mild Winters, have been developed at this Experiment Station in Riverside.

The new varieties, designed for fresh consumption and home canning, are **Rosy**, a white-fleshed variety maturing in mid-season; **Golden State**, a yellow-fleshed Peach notable for large size and good quality; **Hermosa**, also white-fleshed and possessed of good flavor; and **Sunglow**, a Peach with attractive orange-yellow flesh.

The lone Clingstone variety in the group is called **Ramona** and is a yellow-fleshed, late-maturing canning Peach.

These varieties require little chilling in the Winter and should be more resistant to prolonged

FRUITGROWERS

For Experienced Judgment on Fruit—
Assured Returns and Efficient Service

Consign to ...

PATERSON & Co. Ltd.

Licensed Agents

and leading Australian Fruit Exporters

**MUNICIPAL FRUIT MARKETS
SYDNEY**

Address: 665-667 George Street, Haymarket

Box 252, Haymarket P.O.

Phones: MA 6624, MA 6625.

Telegraphic Address: Paterson Ltd., Sydney.

Please Write for Rubber Stamp, Advice Notes, or Stencil.

T

TREES

Plant Goodman's trees for profitable producing orchards. All stocks propagated from prolific bearing parent trees, fibrous rooted and guaranteed straight stemmed. — Catalogue free.

GOODMAN'S NURSERIES

P.O. Box 47 BAINSDALE, VICTORIA



"BAY VIEW" Picking Bag

For Apples and Citrus Fruits

Allows use of both hands. No bruising of fruit. Weight carried on shoulders, instead of back of neck. Full way opening for discharge. No hooks to injure trees.

MR. C. L. IVBY, CYGNET, TASMANIA, WRITES:—
"I have used 'Bay View' Fruit Picking Bags for many years, have bought others, some much dearer, but I always come back to the 'Bay View.' I find them good for 10,000 cases per bag, say 1/3 for every 1,000 cases."

PRICES:

"Bay View" Bag, web straps	12/-
"Bay View" Bag, leather straps . .	15/-
Do., leather bound, leather straps .	20/-
Postage—	1 Bag. 2 Bags.
Within State	1/6 2/-
Adjoining State	2/6 3/6

SOLE MANUFACTURERS: **FOT HERINGHAMS Pty. Ltd.**
118 CHARLES STREET, LAUNCESTON.
VICTORIAN AGENT: **F. R. MELLOR**
452 QUEEN STREET, MELBOURNE, C.I.

You ought to read these six booklets

THE A.M.P. Society has prepared six folders and booklets for those young men and women who want to get ahead financially; who want to strengthen themselves so that they and their families may be prosperous and secure.

These six folders are named in the coupon below. Put a cross against those you wish to read (we suggest that you put a cross against all six) and send the coupon to the nearest A.M.P. office. Reading the folders may give you a new outlook on life and its opportunities. You could not spend a twopenny stamp in a more fruitful way. Send the coupon to-day.

USE THIS COUPON

To the A.M.P. Society.

Please send me the folders marked with a cross in the squares below. It is understood that I put myself under no obligation by sending for these folders. They are absolutely free.

- ☐ You! What has the Future in Store?
- ☐ Buying money.
- ☐ Life Assurance V. other investments.
- ☐ Life Assurance as a business asset.
- ☐ What are your brains worth?
- ☐ Peace of mind.

NAME

ADDRESS

A.M.P. SOCIETY

The Largest Mutual Life Office in the Empire.

SIR SAMUEL HORDERN, K.B.E., Chairman of the Principal Board.
A. W. SNEDDON, F.I.A., General Manager and Actuary.
A. E. WEBB, Manager for New South Wales.
Head Office: 87 Pitt Street, Sydney.

Branch Offices at Melbourne, Brisbane, Adelaide, Perth and Hobart.
District Offices throughout all States.
New Zealand Office: Customhouse Quay, Wellington.

dormancy, or delayed foliation, than the Peaches now grown commercially in southern California. They are regarded as promising for small scale commercial and home garden planting at present.

CANNED APPLE JUICE.

Huge Production in Canada.

Following the scheme outlined in last issue reporting the proposal of the Apple and Pear Board to popularise fruit juices, which scheme is already in operation, a report from Canada is interesting as showing how the Dominion is attempting to overcome its surplus of Apples by converting increasing quantities into juice.

Production of Apple juice in Canada during the 1939-40 season has been estimated at 1,800,000 American gallons, according to a report from the American Consul at Ottawa. This represents an increase of more than 1,000,000 gallons above the production during the previous season.

Commercial production of Apple juice is a relatively new development in Canada. Considerable experimental work was necessary before the techniques for producing the juice and preserving its flavor were developed. A large part of this work was carried on at the experimental farm at Ottawa in co-operation with can-manufacturing companies. The export outlet for Canadian Apples was curtailed as a result of the European war and the abnormal volume of Apples left for the Canadian market during the 1939-40 season was an important factor in the expansion of production and consumption of canned Apple juice.

Good Apples are reported to yield about 150 American gallons of juice per short ton of fruit, states the "California Fruit News." The yield of juice varies not only with the quality of the fruit, but with the time the juice is made. During September or October the juice yield is considerably higher than the yield for the same variety in January. On the basis of the estimated production of 1,800,000 gallons of juice with a yield of 150 gallons to the short ton around 12,000 short tons (500,000 bushels) of Apples were used in making the juice from the 1939 crop.

Consumption of the canned juice has been stimulated by extensive advertising, and the product has become quite popular as a result of this publicity, together with its low price and its fine flavor. Prior to September, 1939, the three most widely used "food" drinks in Canada were Orange juice (both fresh and canned), Tomato juice and Grapefruit juice. The Tomato juice sold in Canada is packed in Canada. Orange and Grapefruit, however, is imported from U.S.A.

OVERSEAS CANNED NOTES.

Originally concentrating on bottled Apple juice, the Nova Scotia Products Ltd. are now canning Apple juice in two sizes.

To meet the demand for canned Tomato products in British Columbia, a new cannery will be established at Grand Forks. Seed will be made available to growers and contracts for supplies signed.

CANNED VEGETABLES.

Restrictions in U.K.

An order issued in England on March 19 last prohibits the importation of canned vegetables except under license. This affects all canned vegetables not previously provided for by license and sets out that, in general, no licenses will be issued to private persons.

SWEET CORN FOR CANNING.

Four Tons Per Acre Possible.

Corn on the cob is a popular dish in America, and, in addition, canned Corn (Maize) is now almost as popular as a quick addition to the dinner menu. The production of Sweet Corn is growing in the Hawkesbury district in N.S.W., where canners are adding this variety to their many activities. Under irrigation, yields up to 4 tons per acre are said to be possible.

Although the past two seasons are reported to have been the worst growing seasons for ten years, results have been comparatively satisfactory.

Increased yields are anticipated from late sowings which have been irrigated. Only the golden colored varieties of Sweet Corn are favored for canning. There are many other districts in the south where the Corn will grow well, but nearness to a cannery is essential, as the Corn must be processed as soon as possible after it is pulled.

Bathurst (N.S.W.). — The Oberon Peagrowers' Association recently conducted a competition for canning Peas. Mr. G. L. Brien was first, with 107 points, Mr. A. E. Armstrong being second, with 101 points.

TOMATO INDUSTRY.

The Tomato variety San Marzano has proved best in N.S.W. for canning and pulp. The Department of Agriculture has developed a valuable mutation or sport from this variety, states Mr. John Douglass, Senior Agricultural Instructor. During February the factories were busy making Tomato sauce, and preparing Tomato juice.

The Tomato Mite can be controlled by dusting with flowers of sulphur.



South Australian News and Notes



S.A. Fruitgrowers and Market Gardeners' Association Incorp.

MEETING OF EXECUTIVE COMMITTEE.

A MEETING of the Executive Committee of the above Association was held in the Board Room, 288A Rundle-street, Adelaide, on February 28, 1941, at 10.30 a.m., the President (Mr. H. N. Wicks) presiding. There were also present Messrs. J. Turner, H. B. Robson, C. H. Ragless, G. H. Schultz, W. Wye, L. J. Wicks, O. Esselbach, R. A. Cramond, J. B. Randell, G. Jennings, W. G. McLaren, G. Clifton, M. Hannaford. Apologies received from Mr. A. G. Strickland (Chief Horticulturist), Messrs. W. J. Bishop, L. B. Pfeiffer, M. Packer, C. Stanford, A. O. Peterson.

Correspondence.

Department of Agriculture: (1) Advising that steps would be taken to regulate the use of certain types of cases on the local markets. (2) Advising codling moth catches at Blackwood Experimental Orchard for the period 3/2/41 to 17/2/41.

S.A. Apple and Pear Acquisition Committee: Advising —

(1) That the Committee regretted the impossibility of taking in Howell Pears for distribution. (2) That growers of Williams Pears could retain advances paid, and purchase back from the Board quantities required for drying at 1/- per case. (3) That enquiries were being made regarding the sale of good grade Williams Pears in the Barossa District to ascertain whether any special arrangement could be arrived at to assist growers.

Uraidla and Summertown H. and F. Society: Circular received from the Society stating that it had been decided to approach members for minimum subscriptions of not less than 5/- to meet maintenance costs, etc., until it was considered fit to conduct further shows.

Resolved that the Association contribute 5/- towards the Show funds.

Australian Red Cross Society and the Army Nurses Fund: Appeals received from both these organisations and it was decided to refer the matter to

members for individual attention.

Sectional and Branch Reports.

Apple and Pear Section: A strong debate took place on various matters arising from Acquisition particularly as regards the W.B.C. Pear.

The President stated that Mr. H. F. Lock, delegate for the Barossa Branch, had asked that the Association approach the State Committee re the urgency for having the present arrangement re Apples and Pears for pig feed revised.

Mr. H. N. Wicks moved: "That the present matter of the state of Apples and Pears for pig feed at 3d. per bushel, be reconsidered by the Board." Seconded Mr. J. B. Randell. Carried.

Affiliation of this Association and S.A. Fruit Marketing Association: The President stated that he had been asked to draft a proposal for the closer co-operation of the Association with the S.A. Fruit Marketing Association and he outlined the proposal briefly.

Mr. L. J. Wicks moved: "That a Committee be formed to investigate the proposal, and if necessary confer with a Committee from the S.A. Fruit Marketing Association." Seconded Mr. R. A. Cramond. Carried.

Resolved that the Committee consist of Messrs. L. J. Wicks, N. T. Hobbs and J. B. Randell.

Soft Fruit Section: Mr. L. G. Pethick reported that Peaches were very plentiful but despite a record crop, distribution was being effected successfully. Apricots were now finished, but it was surprising the quantities of Nectarines available following the torrential rains during the latter part of January.

Cherry Section: Mr. O. Esselbach reported that there were still fair quantities of Valencia Oranges available. Citrus trees generally were looking splendid following the rains.

Celery Section: Mr. C. Ridley reported that quantities of celery were now being forwarded to the Sydney and Brisbane markets.

Fruitgrowers and Market Gardeners' Society Ltd.: Mr. N. T. Hobbs reported that costs to the celery grower were higher this year, but the efforts of the Society in keeping the price of crates down to reasonable limits was much appreciated. Trading generally by the Society was buoyant.

Marion Branch: Mr. H. W. Parsons reported that a sub-committee had been appointed by the branch to organise fully Almond growers in and around Adelaide. Almond prices had given rise to much conjecture, but the matter was at present in the hands of the Prices Commissioner.

Potato Section: Mr. C. J. Pitt reported that the rains had had rather a depressing effect on the quality of potatoes on the local markets.

He stated that a field day was being organised to be held on his property at Ashbourne on March 14, and he extended an invitation to members of the Association to be present.

Onkaparinga Potato Branch: On behalf of Mr. L. B. Pfeiffer the Secretary stated that the crops in the district were looking exceptionally well.

Celery Section.

Adoption of Standard Crate.

For many years the Association has been using two different size crates for its export of celery to interstate markets, namely long and short crates.

This season the Celery Committee has decided to adopt the short crate as standard for all export markets of the Association, and growers are advised that this crate will be the only one accepted at train or ship by the loaders.

The Chairman (Mr. M. Packer) and Mr. W. Packer are at present in the Eastern States finalising arrangements for the 1941 export season.

Celery is already going forward to the Sydney and Brisbane markets, and on account of the absence of sufficient shipping the committee is conducting experiments with rail transport so as to ensure that all markets are supplied with South Australia's choice celery.

Mr. R. G. Bartram has been reappointed as the Section's organiser for the coming season, and growers are requested to contact him on any matters pertaining to transport.

The annual general meeting of celery growers will be held early in April, but growers will be advised in due course as to the exact date of the meeting.

Interstate representatives will be present at the meetings.

POTATO GROWERS.

In the December issue of the "Fruit World," an article entitled "Potato Culture," by Mr. H. H. Orchard, Horticultural Adviser, S.A. Dept., of Agriculture appeared. Numerous enquiries have been received as to when the concluding article under this heading would be published, and growers are now advised that Mr. Orchard has been approached on the matter, and has promised the concluding article at an early date.

Arrangements have also been made through the Onkaparinga Potato Branch for a series of articles to be written by Dr. Bald, of C.S.I.R., Canberra. These articles, when available will appear in the "Fruit World."

FIELD DAY.

Mr. C. J. Pitt, Vice-President of the Association, advises that a field day in conjunction with various Agriculture Bureau Branches of the District will be held on his property at Ashbourne on Friday, March 14, 1941.

A large acreage of this property is under Potato crop, and the day should be of great interest to Potato growers.

An invitation is extended to any member of the Association to be present at the field day, and any one making the trip will find the effort worthwhile.

INSURANCE

THE F. & M.G. Society Ltd.

Recommend that Growers avail themselves of Insurance benefits with

GENERAL ACCIDENT FIRE AND LIFE ASSURANCE CORPORATION LTD.

Assets Exceed . . . £19,000,000
Claims Paid . . . 85,000,000

Definite Concessions offered to Shareholders.

A. STUART, Secretary,
F. & M.G. Society Ltd.

SOUTH AUSTRALIA—(Continued).

DONATION TOWARDS THE WAR EFFORT.

The Tomato Section of the Association last season decided to solicit voluntary donations from its members for the purpose of presenting a cheque for providing an ambulance or other essential equipment.

The presentation will shortly be made and any grower who has not contributed towards this worthy effort, and is desirous of doing so, should contact the Secretary without delay.

DEATH OF MR. A. ROSE.

The passing of Mr. Alf Rose on February 5 last, was learned with regret by fruitgrowers and market gardeners in South Australia.

The late Mr. Rose was for many years Adelaide manager for Messrs. Silk Bros. Pty. Ltd., and was well and favorably known by all connected with the industry.

The South Australian Fruit Marketing Association, Inc.

The monthly meeting of the Executive of the South Australian Fruit Marketing Association was held at Adelaide on February 28, 1941.

Present: Messrs. J. B. Randell, Chairman, R. H. A. Lewis, R. G. Hannaford, M. J. Vickers, S. M. James, H. N. Wicks, R. A. Cramond, F. F. Redden, R. O. Knappstein, A. G. Strickland, F. Rowley, G. S. Queale, L. J. Bishop, and the Secretary.

Suggested Amalgamation: Mr. Randell read a draft of the proposals prepared by Mr. H. N. Wicks, in connection with the suggested amalgamation. It was resolved that copies be sent out to all members of the executive to enable the matter to be discussed at the March meeting.

Apple Prices: Members were critical of the prices that had been fixed for Apples with the Acquisition scheme, and a number of questions were put to Mr. M. J. Vickers, Chairman of the State Apple and Pear Acquisition Committee, and it was finally resolved on the motion of Mr. F. F. Redden, seconded by

Mr. R. G. Hannaford: "That in the considered opinion of this Association, prices fixed for Apples are too high and a lower opening price should be fixed with a view to increasing consumption."

The Secretary was instructed to forward this resolution to the State Apple and Pear Acquisition Committee.

:: :: ::

Growers' Sub-Committee.

The monthly meeting of the Growers' Sub-Committee of the South Australian Fruit Marketing Association was held at Adelaide, on February 28, 1941.

Mr. S. M. James presided at the Growers' Sub-Committee meeting.

Owing to the small attendance, Mr. Wicks kindly consented to postpone his address on "Affinity of Varieties," until the March meeting.

Apple and Pear Acquisition: A number of questions were put to Mr. A. G. Strickland, in regard to the working of the Acquisition scheme, and matters which were causing difficulty to growers were discussed; particularly in regard to payments on fruit delivered, and also on measured gardens, and in regard to supply of varieties.

STH. AUST. DRIED FRUITS BOARD.

Further Plantings Discouraged.

The Sth. Aust. Dried Fruits Board met at Adelaide on February 21.

The rate of the annual contribution was fixed at 4/3 per ton, and the Committee's recommendation for opening quotas was also adopted.

The Secretary (Mr. W. N. Twiss) reported that the Consultative Committee had given close attention to the budget proposals submitted by the Boards of S. Aust., Victoria and N.S.W.

On the recommendation of the Consultative Committee, it was agreed to again approach the Government on the matter of discouragement of further plantings of areas for the production of dried vine fruits.

Secretary reported that arrangements had been fixed for the grading of the Coonawarra pack by an officer of the Department of Commerce.

In the matter of the door classification plan, the Board decided not to appoint a supervising grader for the Berri area for the year 1941.

Two applications for packing house registrations and one for a dealer's registration for year ending December 31, 1941 were approved, as well as assessments of the annual contribution for 1940 of packing houses which had furnished final returns.

THE SOUTH AUSTRALIAN FRUIT MARKETING ASSN. INC.

March Meeting.

The March meetings of the Association will be held at the Secretary's office, 83/4 Brookman Buildings, Grenfell-street, Adelaide, on Friday, March 28, 1941.

Growers' Sub-committee commencing at 1.45 p.m. Speaker, Mr. H. N. Wicks.

Subject: "Affinity of Varieties."

Executive Committee Meeting will commence at 2.45 p.m.

E. WHITFIELD MILLS,
Secretary.

SOUTH AUSTRALIA.

Rains Affect Currants and Prunes — W.B.C. Pears Not Harvested.

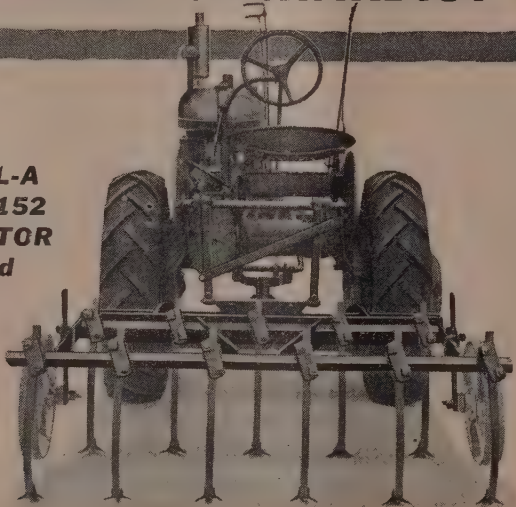
WELCOME RAIN averaging about 4½ inches, during the latter part of January, have put fresh life into the vineyards and orchards which were suffering from the effects of a prolonged drought, and absence of the usual Winter and Spring subsoil rains. It came, however, at a bad time for the Currant crop and early ripening Splendour Prunes, the skins being badly cracked; whilst many of the larger Cleopatra Apples have developed bitter pit.

The canned Pear position in this State is unsatisfactory. The Assistant Minister of Commerce (Mr. Anthony) is reported to have said that the entire crop of canning fruit would be processed, and that all Peaches, Pears and Apricots, suitable for the purpose, would be accepted by canners in the various States. As a matter of fact, although the W.B.C. Pear crop in S.A. was not heavy, canners have refused to take more than about one-third of their usual supplies. In consequence, some hundred tons of choice Williams Pears in this district could not be sold, and were fed to stock, or left on the ground.

The Barossa district has a high reputation for the quality of its canned and dried fruits. In a consignment of canned fruit, sent to London a short time ago, experts stated that the Pears (grown in this locality, and processed by an Adelaide co-operative company) were the best they had seen imported from any part of the world. Considering that the Federal Government has agreed to take financial responsibility for the surplus of canned fruit usually exported, it is surprising that S.A. canners should curtail their output to such an extent.—From A. B. Robin, Nuriootpa, S. Aust., 26/2/41.

NEW TRACTOR POWER AND TOOLBAR-CONNECTED IMPLEMENTS FOR THE ORCHARDIST

FARMALL-A
with GL-152
CULTIVATOR
attached



FARMALL-A, the smallest of the famous McCormick-Deering tractor line, comes to you with a variety of toolbar equipment especially developed for the orchardist. The tractor, with its economical 4-cyl. engine, has a range of field speeds from 1½ to 4½ m.p.h., and a road speed of 10 m.p.h.

FARMALL-A's SLOTTED TOOL BAR enables you to fix direct-connected mouldboard ploughs, spring and stiff-tine cultivators and reversible disc harrows quickly in any desired position for ploughing on or off or cultivating right up to the butts of the trees, and to control them easily from the driver's seat. . . . Floating action of the tool bar permits implements to follow ground contours assuring good, even work. Write to us for a detailed description of Farmall-A and its direct-connected machines and implements, or ask your McCormick-Deering local agent to tell you about them.

MCCORMICK-DEERING line includes a full range of wheel and crawler type tractors to meet all requirements on small or large farms.

INTERNATIONAL HARVESTER COMPANY OF AUSTRALIA PTY. LTD.
(Incorporated in Victoria)

171-205 CITY ROAD, SOUTH MELBOURNE, S.C.4. 4118

SOUTH AUSTRALIA—(Continued).

Progress Report on Grape Juice Investigations at Roseworthy Agricultural College

(By J. L. Williams, R.D.A., Horticulturist and Oenologist, and A. R. Hickinbotham, B.Sc., B.Ed., Chemist, in the S.A. "Journal of Agriculture.")

[The first section of this report appeared in our February issue on p.p. 18 and 19. The report gives particulars of the twenty-five varieties of Grapes which were tested, 14 of which were of the white type. Of the red sorts Shiraz and Aramon were considered the best, followed by Black Muscat of Ham-burgh, Labraska, Isabella, and Flame Tokay. White Hermitage and Shiraz yielded the best of the white and red juices respectively. Maturity of fruit for harvesting, washing, milling and pressing were also dealt with in detail in last month's notes. The article is now continued hereunder:—]

Preliminary Clarification of the Juice.

Grape juice ferments with disconcerting rapidity, especially during the hot weather usually experienced during the months of February and March. It is during this period that Grapes would be harvested in South Australia for the commercial production of juice. This fermentation develops automatically in the juice through the agency of yeasts naturally occurring on the Grapes, despite the fact that large numbers may have been removed by washing the fruit prior to milling. The prevention of automatic fermentation by the removal of yeasts presents one of the most difficult problems associated with the commercial production of fruit juices and Grape juice in particular.

Unfortunately, Grape juice, due to its high viscosity, does not readily lend itself to filtration.

The yeasts may be destroyed by heat treatment and later removed from the juice after a period of storage by decanting off the clear liquid. However, this heat treatment of the juice in contact with the pulp particles imparts an undesirable cooked flavor, unless it is carried out carefully under controlled conditions, viz., by flash pasteurisation.

The difficulties associated with filtration or with centrifuging are largely due to soluble pectins contained in the juice. These pectins render the juice very slimy and difficult to filter. The soluble pectins may be split to simpler products by active pectinase preparations, such as Filtragol or Pectinol, and the juice reduced to such a condition that it may be handled readily by centrifuge or filter and the yeasts removed before fermentation commences.

The principal and only objection to the use of enzymatic clar-

ifying agents is the added cost involved. It is therefore usually recommended to resort to the well-known wine fining agents, tannin and gelatine, to effect preliminary clarification.

The results of previous work indicated that the adoption of enzymatic clarification was likely to be important when dealing with juices from South Australian Grapes. Trials were therefore set up to compare the relative merits of the enzyme, gelatine: tannin, and colloidal clay as fining (clarifying) agents for Grape juice. Unfortunately, egg albumen and milk casein were not included in this trial, but there is no reason to suppose that they would have proved superior to tannin: gelatine, although they are mentioned as being employed for Grape juice in the United States of America.

The experimental work in this part of the investigation was divided into two parts.

In part I. both red and white juices were put up in 500 ml. glass cylinders and treated with varying amounts of Filtragol. Pectinol, gelatine: tannin and bentonite (colloidal clay). Blanks were included in each series of trials, which comprised 500 ml. lots receiving (a) no addition, (b) SO₂ only, (c) tannin and SO₂, (d) tannin only. The samples not treated with SO₂ all fermented before the clarifying agents had produced any clarifying action at room temperature. It was also noticed that those juices receiving no SO₂ darkened appreciably in color and underwent flavor change.

In this set of trials Filtragol 0.1 per cent. and Pectinol 0.2 per cent. gave by far the best results, the treated juices being quite clear and showing a well-defined and compact deposit.

Tannin: gelatine and bentonite gave little improvement in clarity over that shown in the untreated samples below 4 oz. tannin: 4 oz. gelatine or 1½ lb. bentonite per 100 gallons juice. When such large amounts of these substances were used, the deposits made up more than half the bulk treated and did not pack.

Filtragol and Pectinol gave similar results, but twice the quantity of Pectinol was required to produce the same result as Filtragol. It might be mentioned here that Filtragol costs just twice as much as Pectinol and the former is now unprocureable.

In this trial the white juices responded much better than the red juices to the enzyme treatment and cleared more readily.



Grapes growing in South Australia.

In part II. of this clarification study an attempt was made to clear up the practicability or otherwise of gelatine: tannin fining for Grape juice by making a number of semi-commercial scale trials in comparison with the pectinase method. The results obtained here were overwhelmingly in favor of the pectinase method and demonstrated clearly the impracticability of gelatine: tannin as a clarifying agent for Grape juice from South Australian fruit. In this experiment the treated juices were filtered through a small Seitz non-pressure cylindrical wine filter using loose pulp, viz., Begerit No. 5.

The pectinase treated juices, both red and white, filtered up to 20 times more rapidly than those treated with gelatine: tannin and the filtrates were much superior in degree of clarity. It was quite evident that the employment of an enzymatic clarifying agent is essential to the successful handling of Grape juice. For this reason we can confidently recommend the following procedure. Treat the must after crushing with a dose of sulphur dioxide equivalent to 2 oz. Potassium Meta bisulphite per 100 gallons of juice or 4 oz. per ton of fruit. If the fruit is warm when crushed this quantity of SO₂ can be safely doubled. In some quarters the opinion is held that SO₂ tends to neutralize the flavor of the juice. The use of SO₂ for delaying the onset of fermentation is open to criticism on this account. However, our experience at Roseworthy, limited as it is, does not substantiate this view. It is admitted, however, that more definite data are required on this aspect of the handling of the juice. If SO₂ is omitted it is essential to wash the Grapes before crushing. Should SO₂ be used the washing of the fruit is not essential.

Place the juice in a tall narrow vat or vats provided near the base with two taps, the top one being placed at a sufficient distance from the bottom of the vat to permit the clear juice to be racked off the deposited sediment. The juice is treated with the required dose, usually .1 per

cent. of the enzyme preparation, preferably left overnight and the cleared juice racked off the deposit. The enzyme preparation should be well stirred into the juice with an efficient agitating device. This should be repeated after one hour. Deposition of the sediment will take usually from 8 to 12 hours.

Filtration.

The juice can now be handled by a filter. Several types of filter may be used for the purpose, i.e. (a) an alluviation filter employing loose pulp or diatomaceous filter aid, (b) filters employing moulded composition pads or (c) a suitable filter press. We believe that a good centrifugal would be the most suitable machine for the preliminary clarification of the juice. Many South Australian wineries have continuous operation centrifugals installed. In a centrifugal the deposit also possibly could be handled and higher total yields of juice secured.

Stabilization of the Juice.

For the purpose of stabilizing the juice, the manufacturer has the choice of two methods of handling, viz., heat sterilization of the juice or germ-free filtration. The former method is not very highly regarded for Grape juice as it is said to impart a somewhat cooked flavor to the juice. Experience elsewhere, however, has shown that this need not necessarily be so if the heat treatment is carried out under carefully controlled conditions, viz., by flash pasteurizing for a few seconds at a temperature of 165 deg. to 175 deg. F.

FOR SALE

Solid "Kauri" Dipping Trough (Shop-soiled): 5 ft. long, 17 in. wide, 18 in. deep, 57/6. 5 ft. Draining Board, 9/-; Cast Iron Pulleys: 8 in. x 4 in., 20/-; 6 in. x 4 in., 15/-; Red Oxide Powder (for cheap paint): 6 lb., 2/6. "Trugrade" Sizing Rings: New Style (2, 2½, 2¾, 2½, 2¾, and 3 ins.). Strong, accurate, and fold up for pocket, 6/-, postage 8d. Rubber Stamps: Ink and Pads. Stencils: Cut to order, Stencil Ink and Brushes. Newspaper and White Lining, Woodwool. Banana Cases: Secondhand. Cases of all kinds: New and reconditioned. Fruit Picking Ladders. Cheap Garden Hose: Dunlop "Atlantic" 1 in. x 1 braid, moulded hose, 53d. per ft.; 100 ft. and over, 5d. per ft. F. B. MELLON. 452 Queen St., Melb., C.I. Phone: F 2387

Grape Juice Investigations (cont'd)

and immediately cooling to near original temperature. For this reason, in our experiments, we used the cold filtration method (Seitz plan). The successful application of this method in the commercial sphere offers certain difficulties, and we are of the opinion that the process, to be successful, requires the use of special plant involving considerable capital outlay and operated by trained technicians. However, it is claimed by some to be the only satisfactory method of making a really high-class Grape juice.

For the time being small manufacturers would be better advised to use the heat sterilization method. This method is the one chiefly used in U.S.A., where large quantities of Grape juice are marketed. In U.S.A. the Concord variety is used almost exclusively. The "foxy" flavor of this variety to a large extent masks the cooked flavor of the juice. In this report it is impossible to give complete details of the two methods. However, from the point of view of general interest flow sheets of the two methods are given to show the general sequence of operations.

Two modifications of the cold method are given, viz., the Seitz method (used in our experiments), and the Seitz-Boehi method. The latter is the one used by the large co-operative Grape juice factory at Worcester in South Africa.

Other methods are available for preparing Grape juice, but these are patented processes about which few details are known.

Flow Sheet of the Heat Stabilization Process.

Grapes 12-13 deg. Bé.
Crushing (stalks separated)
Heating Must (steam jacketed stainless steel or aluminium kettles 140-150 deg. F.)
Pressing Marc (hydraulic rack and cloth presses in U.S.A.)
Sterilizing (175-185 deg. F. into stone jars or carboys after preliminary straining)
Storage (cool cellar or refrigerated chamber to deposit tartar)
Racking
Filtering and fining (egg white, casein or gelatin: tannin)
Bottling and pasteurising—30 minutes at 175-185 deg. F.

The chief advantage claimed for the heat process is its adaptation to small scale operation and simple plant.

The Cold Process.

Distinction is made between the Seitz and the Seitz-Boehi processes, but each has certain features in common. The latter method requires the use of special glass-lined steel vessels made to withstand a high pressure of carbon dioxide of about 120 lb. per square inch at 50 deg. to 65 deg. F. is necessary. Protected with this pressure of CO₂ the juice will keep indefinitely. Considerable quantities of CO₂ are used and the plant is costly.

Glass-lined tanks are expensive and we understand that it is general practice to use steel tanks coated on the inside with one of the bituminous preparations now on the market.

Seitz Process

Germ free filtration
Storing in cool to deposit tartar
Germ free filtration into sterile containers

Seitz-Boehi Process

Impregnation with CO₂ in suitably lined steel pressure tanks
Storing to deposit tartar
Removal and recovery of CO₂.
Germ free filtration into sterile containers

Summary.

(1) The results of one season's study of the production of Grape juice are discussed.

For a more detailed account of the processes involved we advise readers to consult the fol-

lowing publications:—

a. "Technical Communication

No. 11 of Imperial Bureau of Horticulture and Plantation Crops," by V. L. S. Charley and T. H. J. Harrison (obtainable through McGill's Newsagency, 183 Elizabeth-street, Melbourne).

b. "The Preservation of Fresh Fruit Juices," Joslyn, Marsh and Tressler, published by the Avi Publishing Co., New York.

c. "Fruit Juices and Syrups," "Journal of Ministry of Agriculture," Vol. XLVI., No. 5, August, 1939, by V. L. S. Charley.

(2) The quality of Grape juice is influenced considerably by variety, stage of ripeness and condition of the fruit when harvested and, possibly, by the soils and climate of the area in which the fruits are grown.

Flow Sheet of the Cold Process.

Grapes—sound, cool and clean at 9-12 deg. Bé.
Crushing
Pressing (small dose of SO₂ may be used)
Preliminary clarification (Enzyme preparation)
Decanting off deposit
Crystal clear filtration (alluviation filter or centrifugal, or both)

pend very largely on the recovery of by-products in the form of rectified spirit, vinegar and cream of tartar.

Grape marcs are a valuable source of alcohol, cream of tartar and vinegar. The Tarac Manufacturing Co. Pty. Ltd. is already successfully exploiting Grape marcs from the wineries in South Australia, and has factories at Berri, Nuriootpa and Walkerville.

There is great scope for the production of cream of tartar in Australia, as insufficient is produced to meet our own Australian requirements in this commodity. The world's markets in the past have been supplied almost entirely by the wine industries of France, Italy, and Germany; supplies which are no longer available. Any factory handling Grapes should exploit this product to the utmost in view of a shortage of

(3) It is evident that the preliminary treatment of Grape juice from South Australian fruit with which the juice is impregnated; a pressure with a suitable pectinase preparation is essential to the successful clearing and filtration of the product. The additional cost incurred by the use of the clarifying agent would be more than offset by the saving of time and labor involved.

In the instance of Grapes, further trials are needed to provide clarification data for different varieties at varying stages of ripeness.

A suitable enzyme preparation is now probably unobtainable in Australia in commercial quantities.

(4) Blending in most cases greatly increased the attractiveness of Grape juice.

(5) The adjustment of the acid content of Grape juices of low acidity greatly improved their flavor. Citric acid was used for this purpose.

(6) Muscat varieties promise to be useful for imparting special flavor characteristics.

(7) Grape juice improves in cold storage and deposits tartar.

(8) The exploitation of by-products is emphasized. The successful exploitation of Grape juices in Australia, irrespective of other considerations, will de-

a commodity which is entirely obtained from the Grape.

It is suggested that of the ways in which the wine industry in Australia might profitably be assisted over a difficult period, the development of the Grape juice and by-products industries along sound lines offers definite possibilities of success.

WESTERN AUSTRALIA.

Excess of Apples Beyond Local Market Requirements.

Publicity Campaign Being Organised.

Sales by Count or by Weight?

Despite continued dry weather which has reduced crop prospects, it is expected that there will be a substantial surplus of high quality Apples above the normal local market requirements.

An educational publicity campaign is to be conducted.

Mr. T. Price has been elected chairman of the Publicity Committee, with Mr. D. J. Sutcliffe deputy chairman. Other members are Messrs. F. W. Lantzke, B. Mercer, and G. Bloomfield.

Consideration is being given to the sale of Apples by count instead of by weight.

Fruit Trees & Fruit Tree Stocks

Splendid Stock of Healthy Plants Available.

APPLES, PEACHES, PEARS, PLUMS, APRICOTS, CITRUS, ETC., PACKED AND DESPATCHED TO ALL PARTS OF THE WORLD.

Overseas Orders receive careful and prompt attention.

Catalogue printed.

Code A.B.C., 5th Ed.

C. A. Nobelius & Sons Pty. Ltd.

Gembrook Nurseries, EMERALD, VICTORIA.

Phone: Ringwood 171.

GRAPES NOT TO ROT ON VINES.

Wine Vintage to Proceed.

Mr. Anthony's Tour of S.A. Areas.

FACED WITH THE PROSPECT of many thousands of tons of Grapes being left to rot unharvested on Australian vines as a result of the collapse of our export wine market due to the war, the Assistant Minister for Commerce (Mr. H. L. Anthony) made an extensive tour of the Grape-growing areas of South Australia, the home of the Commonwealth's wine industry.

Mr. Anthony subsequently expressed gratification that arrangements had been made for the processing of practically the entire crop this vintage.

"The economic stability of the Commonwealth will be impaired and widespread unemployment will be caused if we permit any of our hard-hit primary industries to go to the wall as a result of the war," said Mr. Anthony to-day.

Australia normally consumes 4,000,000 gallons of wine, and 4,000,000 gallons are exported. Shipping difficulties have reduced exports at present to an infinitesimal figure. Despite this, it was announced, subsequent to a conference between the Assistant Minister and the Winemakers' Association of South Australia, that the wineries will again purchase from the growers this season's Grape harvest, and that which cannot be disposed of in Australia will have to be placed in storage.

Mr. Anthony intimated that he planned to summon a conference of representatives of all sections of the industry to evolve plans well in advance to deal with difficulties that threatened to arise with the approach of the 1942 vintage.

Growers Relieved.

News that all, or virtually all, of this season's crop of wine Grapes would be harvested spread quickly, relieving the grave anxiety of growers throughout the wine-producing areas.

In addition to conferring with the Winemakers' Association while in Adelaide, Mr. Anthony consulted representatives of the Grape Growers' Council, the Federal Viticultural Council and the Australian Wine Board. Later he inspected vineyards, wineries and distilleries in the Morphettvale, Noarlunga, Mt. Barker, Lyndoch, Barossa, Tanunda, Nuriootpa, Waikerie, Barmera, Berri, Kingston and Renmark areas.

Mr. Anthony expressed himself as greatly impressed at the extent of the wine industry. He had visited town after town and thickly settled areas dependent almost wholly for their very existence on the industry, and in the Renmark-Waikerie area more than a thousand returned soldier settlers were engaged almost exclusively in growing wine Grapes.

• THE MARKET GROWER •

Tomato Growers Organising

THE TOMATO GROWERS' Association of Victoria is vigorously at work. The President is Mr. Lindsay Pither, and the Secretary is Mr. A. T. B. Goyen, of Shepparton.

A summary of the activities of the Association is supplied by the Secretary as follows:—

(1) The chaotic conditions that prevailed during the 1939-40 Tomato season were probably the direct result of the high prices of the previous year. Growers in the main factory Tomato districts had forced on them the necessity for complete organisation and co-operation. To-day we have active association at Shepparton, Bendigo, Koondrook, Echuca, linked together in a Victorian T.G.A., while Quantong and Portland are co-operating.

(2) Organised Tomato Growers have this year faced the organisations comprising their main customers. After the conference in November, 1940, a sort of stalemate ensued. This was broken when the growers pressed for the action that resulted in an abortive meeting in January. A manufacturers' representative eventually notified the Association that its members should deal individually with each individual company. The growers held a monster meeting and cut off all supplies except those to market. This collective activity was thus to be answered by collective action.

(3) Then followed a period of about 14 days, during which patrols were set up and every effort made to stop supplies reaching the factories. Stern action was necessary as it was considered that unnaturalized foreigners were being intimidated and used to the detriment of local growers.

This "strike" seems to be an occurrence unique in the history of primary production. The incident closed when the level-headed Minister of Agriculture conferred with the manufacturers—whilst growers' representatives cooled their heels in the outer rooms. When the growers entered on the scene, the manufacturers had flown. The Minister appears to have been very sympathetically im-

pressed for he has indicated that Tomatoes will be brought under the Marketing Act. So the fight progressed another stage. Picking recommenced at slightly increased prices; and the growers met again to prepare for the next steps.

:: :: ::

Organisations in the various districts and their executive officers are as follow:—

Bendigo: Pres., Mr. A. H. de Grandi; Sec., Mr. S. McKinnon, Baxter-street, Bendigo.

Echuca, Koondrook: Pres., Mr. Reed, Koondrook.

Portland: Pres., Mr. D. M. Millan, Alleshee; Sec., Mr. M. Barrett, Portland.

Quantong: Mr. C. H. Jost, Quantong.

Shepparton: Pres., Mr. L. Pither, Shepparton East; Sec., Mr. A. T. B. Goyen, Shepparton.

:: :: ::

Tomato Board Sought.

Recently, Mr. Hollway, M.L.A., Victoria, attacked Marketing Boards generally, and included reference to Tomatoes.

Mr. Pither promptly replied stating that the Tomato growers did not have a Marketing Board and that this was probably the cause of their plight: further, that the growers were organising with the object of securing a Board as soon as possible.

:: :: ::

Offer from Leeton, N.S.W.

3/3 per Case on Growers' Farms

The offer from the Leeton Cannery of 3/3 per case on the farms for canning Tomatoes, was accepted by the Shepparton Tomato Growers' Association at the end of February. The President, Mr. L. Pither, said the Leeton Cannery sought to purchase 2,000 to 4,000 cases, and he felt sure there were sufficient good quality Tomatoes available to fulfil the order.

ONION CROP DOWN.

Spread Deliveries Advised.

Survey figures released by the Victorian Onion Marketing Board at its meeting on February 25, estimated a reduction of 7,000 tons as compared with last year in Brown Spanish and Globes.

After allowing for deterioration estimated on a similar basis to last year the quantity available for marketing from now onwards would not exceed 16,000 tons.

The estimated marketable Onions in 1940 was 23,000 tons; the accuracy of this estimate was borne out in the total sales of 22,000 tons when supplies then became exhausted. As well as a reduced production in Victoria, reports show considerable light yields in other States, and heavy demand on Victorian supplies may be expected.

Summed up, the production was well within normal Australian requirements, and to maintain values growers would be advised to avoid oversupplying the market at present, but spread their deliveries over the year, when values were likely to improve, he said.

SOWING AND PLANTING.

March Hints.

Sow seeds of carrot, kale, Kohl Rabi, Leek, Parsley, Parsnip, Turnip. Plant seed or seedlings of cabbage, celery, lettuce, onion, brussels sprouts, red and silver beet and cauliflower.

Clear away herbage of Summer crops, dig and lime the ground.

Hoe between growing crops and apply a mulch of decayed manure. Apply waterings of weak liquid manure to developing crops of Cape Gooseberry.

Sow early peas, such as William Hurst, and follow with Greenfeast and Richard Seddon.

Grow mustard and cress all the year round. These grow readily in all districts, even where water is scarce. Keep up a succession by sowing a pinch of seed each week. The green leaves are pleasantly flavored and rich in vitamins.



FRUIT TREES

Large Quantities in all Leading Varieties

OUR CITRUS TREES—buds supplied by the BUD SELECTION SOCIETY—are well grown on virgin soil, and should give every satisfaction for profitable returns.

Early Booking is advisable for Later Delivery.

CATALOGUE FREE on application.

L. P. ROSEN & SON

"Fernhill Nurseries," Pennant Hills Road, CARLINGFORD, N.S.W.

'PHONE: Epping 96. After Hours, Epping 58.

ESTABLISHED 1901.

THE MARKET GROWER—(Continued).

Success with Vegetables

SEEDBED MANAGEMENT.

SUCCESS IN VEGETABLE growing depends upon the methods employed and the care given to the seedbed, said Mr. R. G. May, of the Bathurst (N.S.W.) Experimental Farm recently.

The seedbed should be changed to a new position each year—on a slight slope, if possible. It should be sheltered from the wind and free from risk of flooding by storms. The soil should be a friable loam, not too loose.

About three months before seeding time, the site and surrounding area should be cleared of all growth and rubbish likely to shelter insects. The bed must be dug to full-fork depth and all clods broken and stones removed. The bed width usually favored was three feet.

When digging was completed, the soil should be levelled with a rake. Waterings should be given at sufficient intervals to cause weed seeds to germinate. These should be destroyed by go-

ing over the bed again with a rake. This allowed fresh soil to be brought to the surface. Watering and the use of the rake should continue until seeding time, by which time the lower soil would have been sufficiently consolidated, weed seeds destroyed and the important surface layer aerated and in the best condition to receive the seeds.

The surface of the bed should be about two inches higher than the surrounding soil.

Seeds and Sowing.

Obtain high quality seeds from best sources.

Before sowing, a light dressing of superphosphate should be worked into the seedbed soil with a rake. The seed should be sown in rows from four inches to six inches apart. These rows or drills were readily made by using a half-inch board of the sowing width desired and as wide as the bed.

The first drill was made by using the edge of this board at

the end of the seed bed, then using the width of the board as a spacer. The edge of this board should be pressed and sawn across the bed to a depth of half an inch. When sufficient drills had been struck, the seed should be sown at a spacing which would avoid too thick a stand. After the seeds were sown in these drills, they should be covered with a little soil or sand, and topped off with well-rotted horse, sheep, or farmyard manure, free from weed seed.

The seed beds should be watered daily, preferably in the morning before the sun became too hot. The damping-off fungus (*Pythium debaryanum*) could be controlled by sowing the seed in rows. This fungus lived near the surface of the ground, extending from plant to plant, and had caused severe losses to growers whose seed beds did not permit control measures to be adopted. Control could be obtained by stirring the surface soil, thus opening it to sunlight and air, and also by reducing the amount of watering given.

CUTTING THE TAP ROOTS.

About three weeks before transplanting, a knife or suitable blade should be used to undercut the plants, about one and a half or two inches below the

surface. This operation cut the tap-root, and caused numerous fibrous roots to form. It also checked the soft growth of the plants, with the result that they transplanted well. The plants should be freely watered for a few days after this operation, to encourage the fibrous root development. The waterings should then be reduced, and the plants given longer periods of exposure to the sun to harden them off.

The correct use of the dibble or transplanting tool used was important. After the hole for the plant was made the tool should be used so that the soil was compacted around the roots of the transplant, and not, as was sometimes the case, around the stem near the ground level, leaving the roots in a hollow lower down. The rootlets must be in very close contact with the soil.

GROWING BEANS FOR SEED.

Profitable at £45 per Acre.

The growing of Beans for seed in suitable districts is profitable, states Mr. W. H. Whan, Experimentalist, N.S.W. Department of Agriculture. Bathurst was one suitable district. At 15 bushels to the acre and £3 per bushel for a 5 months' crop, returns were satisfactory, stated Mr. Whan; sometimes the price was £5 per bushel. Skill was needed in cultivation, roguing, irrigation, harvesting, and threshing.

THE CAROB BEAN.

A Good Fodder Tree.

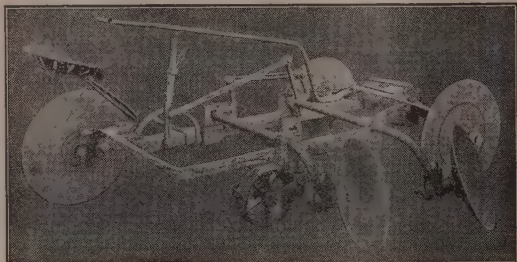
This Bean makes a wonderful fodder crop and is particularly useful in dry seasons. Stock will leave the choicest pastures to get the Beans as they fall from the trees, says Mr. A. Lawrence, in the "Graziers' Journal," Queensland. He adds that if he had known what a splendid fodder the Carob produces he would have planted many acres and no drought would have worried him.

Even in good seasons, surplus Beans can be used for fattening stock. Another writer from N.S.W. says that he gets 5 to 6 three-bushel bags from a large tree each year, and it provides ornamental foliage and good shade as well.

MAIZE POOL CLOSING.

The Secretary of the Maize Marketing Board advises that the pool of the 1940 Maize crop will close during March and that producers should forward stocks to be sold now, otherwise they will go into the 1941 pool, with probably lower prices. All Maize on hand has been sold at current prices, and all Maize received before the closing date will be sold at this year's contract price. March 15 is the tentative closing date.

"HILLMAN" ORCHARD STRIP PLOW



The steering arms are drop forged from the best mild steel and the main wheels are equipped with ball bearings.

Two medium horses can work this machine all day without tiring. A machine may be obtained for a trial at any time.

Double Furrow

A sturdy, strong plow equipped with reversible discs to enable the operator to plow up to, or away from the trees. Operated by a single lever and with nothing to catch branches of trees. To facilitate the movement of the plow around the orchard the discs are movable and lift clear of the ground.

Further particulars apply . . .

HILLMAN & KEOGH

Implement Manufacturers

Shipley Street, Box Hill, Melbourne, E.11

Regular Weekly Sailings—Between Sydney, Melbourne, Newcastle and Brisbane

The Patrick fleet of fast, modern vessels still maintains a weekly sailing schedule between Sydney, Melbourne, Newcastle and Brisbane.

Prompt delivery is assured when you consign your cargo to the Patrick line.



JAMES PATRICK and CO. PTY. LTD.

SCOTTISH HOUSE, BRIDGE STREET, SYDNEY BW 4181 (6 lines)

Also at

MELBOURNE: 34-43 William Street - - M 5901

BRISBANE: Circular Quay - - - - B 1585

NEWCASTLE: 27 Watt Street - - Newcastle 1225

SHIP BY PATRICK STEAMERS
FOR
SAFETY SERVICE SAVINGS

CITRUS NOTES—(Contd. from p. 6).

CITRUS CROPS,

SOUTH AUSTRALIA.

Navels and Valencias Light.

Citrus crop prospects for S. Australia are estimated as follows by Mr. A. G. Strickland, M.Ag.Sc., Chief Horticulturist:

Generally throughout all the citrus areas in South Australia the prospective crop for 1941 is considerably below that harvested in 1940. In the case of Washington Navel Oranges which constitute the chief variety, expectations are from 30-50 per cent. below 1940 crops according to district. However, in some areas, individual properties are carrying fair crops, almost equal to last season's.

Valencia Oranges are very light throughout, also seedling varieties and Mandarins.

Grape Fruit, although not grown extensively, will probably be 30 per cent. down on 1940 figures.

Lemons are estimated to yield approximately 30 per cent. less than normal.

Although crops are remarkably lighter than normal, figures will be increased somewhat, due to increased size. Fruit is already showing signs of being very large and this will, to a limited extent, offset the light setting.

At the present time trees in some districts are flowering freely.

N.S.W. CITRUS CROP PROSPECTS.

Good Rains Assist Crops.

THE PROLONGED DRY WEATHER prior to December, 1940, adversely affected citrus trees. Following heavy rains in December and January there was considerable shedding of fruit. Because of the increased size of the fruit the aggregate number of bushel cases should exceed that of last season.

The forecast compiled by Mr. A. A. Watson, Chief, Division of Marketing, N.S.W., Dept. of Agriculture, is as follows:—

Forecast for 1941.

Oranges:	Bushels.	Bushels.
Navels . .	981,000	
Valencias	1,111,000	
Other . .	198,000	
		2,290,000
Mandarins		277,000
Lemons		256,000
Grapefruit		64,000
Total		2,887,000

VICTORIAN CITRUS CROP PROSPECTS.

The Victorian Department of Agriculture advises that except for Grape Fruit and Lemons, the indications are that the 1941/42 crop of citrus fruits will be very

Victorian News and Notes

Victorian Cool Stores Association

Report of Special Meeting

A SPECIAL MEETING of the above Association was held at Melbourne on February 7, when the President, Mr. W. P. Mair, presided, and the following delegates were present:—Messrs. J. H. Tainton and C. F. Fankhauser (East Burwood), F. A. Bloom (East Doncaster), J. H. Lang and J. H. Ely (Harcourt), N. L. Whitten (Hastings), W. J. Williamson (Portland), T. W. White (Somerville), J. Lillywhite (Tyabb), T. J. Byrne (Wantirna), N. Lechte (Lechte Bros.). Mr. Ward, Superintendent of Horticulture, represented the Department of Agriculture.

Following a letter requesting the reduction of size required for Winter Nelis Pears to 2½, the same as Winter Coles, the Acquisition Committee wrote that this concession could not be acceded to.

In reply to a letter to the Minister for the Army asking that fruit pickers be exempted from call up during the picking season, the Secretary advised that all lists took into consideration the claims for reserved occupations, but that each claim is considered upon its merits and that the onus is upon the persons concerned. They should apply for such temporary exemption as was required to the Commanding Officer of their unit or to the Area Officer in their district.

The question of the supply of packing cases was dealt with in a letter from the Apple and Pear Board. Delegates reported that there would be a dearth of cases, and it was decided to urge the Board to hasten the return of cases to growers or to supply the equivalent numbers from stock. Also that the Acquisition Committee fix a reasonable selling price at which growers can buy cases. Further, that the Committee purchase cases in large quantities for release to growers.

In view of the anticipated glut that will follow the heavy crop of Jonathans, it was recommended that the Acquisition Committee dispose of surplus fruit by free gifts to military

light. The present estimate for the Orange crop is 435,000 bushels, which is only about half of the quantity of last season. Grape Fruit is estimated at 30,000 bushels. Mandarins very light at about 5,000 bushels and Lemons are expected to yield 165,000 bushels. It is anticipated, however, that a later revised estimate for Lemons will increase the present estimate.

camp and public schools. Also that Apples be sold in half cases for the convenience of consumers with a view to increasing greater consumption, and that any other practical means of clearing the market of surplus fruit be endorsed.

A letter from the Organising Officer of the forthcoming Queen Carnival was read. It was decided to recommend to all members of the Association that the Primary Products Section of the appeal should be strongly supported.

After discussion of suggested venues for the next annual conference, the Secretary was instructed to make enquiries regarding Cowes, accommodation facilities, tariff rates, etc., and to make suitable arrangements and fix the date. Matters

for inclusion on the agenda to be submitted at an early date.

Considerable opposition was expressed to the announcement that 1/- and 1/6 per tree was to be paid to growers for varieties of Apples and Pears that are not on the list of those to be acquired. The amount was regarded as being absolutely inadequate. The opinion was expressed that an earlier announcement should have been made, as growers had been put to considerable expense in spraying and cultivation, which would not have been incurred had the announcement been made earlier. The legality of the payment was also questioned.

FRUIT IN THE DIET.

The value of Apples and Oranges as part of the daily diet has been established by tests conducted by Dr. Ramsay Mailer at opportunity diets in Melbourne suburbs. The tests are with the now famous "Oslo Diet"—inexpensive but wholly nutritious.

Make certain of

A Good Cover Crop

by

Sowing with

Sulphate of Ammonia

in addition to SUPER

Ask for

1 & 1 or 2 & 1 Super & Ammonia

SULPHATE of AMMONIA
is INDISPENSABLE in a
WELL-KEPT ORCHARD

VICTORIA (contd.)

Horticultural Conditions in February, 1941

IN a report by the Department of Agriculture, and reviewing horticultural conditions in Victoria during the month of February, it is stated that harvesting of the W.B.C. and Packham Pears in Northern areas has been completed. The fruit was of excellent quality. Large crops of Jonathan Apples were almost ready for harvesting at the end of the month—a first quality crop. On some trees, woolly aphis has been prevalent because of the diminished activities to the parasite wasp and as a result, fruit was beginning to drop. Red spider is also very obvious on some orchards, and it will be necessary for most Apple and Pear trees to receive a thorough spraying of red oil during the late Winter for the control of these pests.

Codling moth activity increased during the month. Growers were advised to apply a protective cover spray on all varieties of Apples and Pears not ready for immediate picking. At this stage, a spray of white oil (one gallon in 80) was advised because of its effectiveness as an ovicide and also because it obviates the excessive residue which would result from a lead arsenate spray.

In the vine growing areas, picking of the Currant crop has been almost completed. Rain in January and again in February caused considerable damage, and quality and yield are below normal. Sultana harvesting has commenced. A greater quantity of Sultanas than usual was disposed of on the fresh fruit market this season. A rapid increase in the sugar content has occurred and the drying and processing of fruit is in progress. The mixed dip is favored for early rack fillings, but both the mixed and cold dips are used later in the season. Growers

should inspect the drying fruit regularly to make certain that the dipping is being carried out correctly. For the mixed dip, a temperature of 185 deg. F. is recommended with a reasonably quick dipping: yield less than last season, but quality good. Walthams and Gordos are reaching the market, and satisfactory prices are being received. Some increase of the vine mite has been noticed on the Gordo and Doradillo varieties; for the control of this pest a sulphur dust must be applied immediately.

In citrus areas, some increase in red scale has occurred. Fumigation is still in progress in the Mildura district, but in the Swan Hill district, growers have resorted to spraying.

In Northern fruitgrowing areas, there is an ample supply of labor, but in Southern districts, most growers are experiencing difficulty in obtaining sufficient labor for picking.

VICTORIA.

The official estimate is that the coming Apple crop will approximate 3½ million bushels—probably a record.

In the Harcourt district alone the crop is estimated by local growers to be between 800,000 and 1,000,000 bushels.

In the absence of rain an additional watering by irrigation is needed.

FRUITGROWERS' DEFENCE LEAGUE.

By an oversight which is regretted the name of the Fruitgrowers' and Primary Producers' Defence League of Australia was omitted in the "Fruit World Annual." The Secretary is Mr. E. W. Buttle, Donvale, Victoria.

During the Spinach season, the Oakdale Cannery (Calif.) employs 125 hands on Spinach alone. Another large canner of Spinach is at Armona, in California. So evidently Pop-eye is doing good work.

Oil extracted from Grapefruit seeds is now used in dyeing textiles. Though it has a bitter taste, it can be removed with caustic soda and used as an oil on vegetable seeds. Florida last year produced 90,000 lb. of this oil.

OVERSEAS FRUIT BRIEFS.

A Turnip weighing 16½ lb. was reported from a Californian farm.

Oregon State College conducts a special course for commercial fruit canners every year.

The Union Pacific Railway Company recently ran a Potato improvement train through three southern States, with lectures and exhibits complete.

Engineers of the University of California have perfected a machine that will plant single Beetroot seeds individually.

By adding copper sulphate to the soil, growers in the Riverside area have increased Orange production.

Over 41 million acres of land in California are eroded and will have to be treated to ensure future use.

Asparagus led in California vegetable production last year, with an acreage of 76,750 acres, followed by canning Tomatoes 57,641 acres, Lettuce 45,700 acres, and Potatoes 33,300 acres.

At least three firms are advertising in Sonoma County, Calif., to root out old fruit trees with tractors.

VALUE OF FRUIT JUICES.

A Doctor's Advice.

The Minister for Commerce (Sir Earle Page) is a medical man. He urges people to drink less tea and to replace it with Apple juice, Orange juice, or Pineapple juice. The health of the people would thus be improved.

Also, he asked, could not those who liked their nobbler of whisky change over to light wines.

Primary industries and the national exchequer would benefit. In the first year of the war Australia imported tea to the value of £2,543,104, and whisky to the value of £895,308.

The question as to whether pruning methods have been too severe in the past is raised as the result of a series of tests at the Bathurst, N.S.W., Experiment Farm.

100,000 gallons of Apple juice have been sold by orchardists to a brandy company for fermentation.

You Can't Get Good Prices for Bruised Fruit

PROTECT YOUR FRUIT WITH

ANTI-BRUZE CORRUGATED FRUIT PADS

MADE IN TASMANIA

Obtainable from Leading Distributors throughout Tasmania

In the following Sizes and Quantities:—

DUMP CASES—

SIDES (Plain or Vented) . . . 17 x 14 500's
17 x 13 500's

17 x 8½ 1,000's
17 x 8 1,000's

TOPS AND BOTTOMS . . . 17 x 8 1,000's

CANADIAN CASES—

SIDES . . . 17 x 10 1,000's

17 x 10½ 1,000's

17 x 11 1,000's

PEARS—

SIDES . . . 13 x 6 1,000's

TOPS AND BOTTOMS . . . 13 x 12 500's

Also Combination Packs of:—

DUMPS CANADIAN PEARS

(500 17 x 13) (500 17 x 10) (334 13 x 6)

(500 17 x 8) (500 17 x 11) (334 13 x 12)



THEY'RE GIVING EVERYTHING . . .

Here's a fighting force that **YOU** can join . . .

WAR SAVINGS CERTIFICATE

Get into the fight! Buy War Savings Certificates. You may buy them outright; you may form a group with friends — with neighbours — with work-mates or you may buy sixpenny War Savings stamps — a very easy way for everyone to help — and help is needed NOW.



FOR SECURITY'S SAKE

BUY WAR SAVINGS Certificates

BUY CERTIFICATES AT ANY BANK OR POST OFFICE

FORM A GROUP WRITE TO COMMONWEALTH BANK FOR DETAILS

Dried Fruit News and Notes

How Crops are Estimated

Maturation and Growth

IN a very informative address to growers in the Mildura (Victoria) area, Mr. A. V. Lyon recently covered many interesting subjects of value to growers, reported the "Murray Pioneer." He explained how the microscope played an important part in assessing the prospective crop by revealing the potential fertile buds. From this fertility and bunch count permits the officers to estimate what the season will yield.

Maturation Tests.

Maturation tests made for the past few years were mainly of value when seasonal development was unnatural. "The peculiarity of the past two seasons in this respect have made the maturity tests of practical value," he said. "In 1939 the advice given to pick early proved of some practical value. Last year maturation was late and we were fortunate in having wonderful March weather. This year, vine development is quite normal and natural; bunches are a little ahead in size and development in the old Mildura settlement over that to date for the past 12 years.

Vine Yield.

"In reviewing the tonnage per acre in five year periods, there has been an increased yield in the Mildura settlement of 8 cwt. per acre over the whole area. Perhaps a large contributing factor to account for this is the complete drainage system which has been installed in that settlement. Better cultural practices have also helped in this respect. There is a concerted opinion among growers that the nitrogen supply obtained from cover crops is sufficient to meet the demands of the vine, but additional nitrogen in every trial has been responsible for a higher tonnage per acre.

"The disadvantage resulting in additional nitrogen through a little later maturity and lowering of grade is so slight as to make them practically of little consequence. We can definitely say that a practical response has been obtained by additional nitrogen over and above that obtained from cover crops alone.

Currants.

"Last year," he continued, "We experienced a premature leaf fall in these vines. We must understand that the vines were carrying a heavy crop and they were struggling to mature this crop. This means that the carbohydrates were depleted and in many cases the vines were not able to stand up to the strain of maturing the crop and at the same time building up a reserve of carbo-hydrates. We went into the Winter with cover crops growing poorly and salt coming to the surface without the counter-balancing effect of Winter rains, and this has been responsible to a great extent to the

prevalence of white leaves in Currants this year. It is mainly a nutrition problem due to the rise of injurious salts.

Vine Growth.

"The growth rate of an individual shoot on a vine depends upon the rate of growth in early Spring, when the initial growth commences. If we measure a shoot early in the season and measure the same shoot when growth has ceased we find that the same ratio of growth has been maintained right throughout the season. You cannot force a small shoot to become a vigorous one, but the same proportional growth rate will be noted until the shoot stops growing.

DRIED FRUITS IN W. AUST.

The annual report of the W. Aust. Dried Fruits Board states that in 1940 the production was as follows (in tons):—Currants 3,005, Sultanas 436, Lexias, 274, total 3,715. The voluntary agreement between the A.D.F.A. and dealers worked satisfactorily. Publicity to increase dried fruit consumption was appreciated.

DRIED FRUIT PRICES.

The following prices have been announced by the A.D.F.A. to operate from March 1, 1940, at main capital cities and producing centres, plus the usual additions for shipments to other points.

Currants: 4-Crown, 8½d. per lb.; 3-Crown, 8½d.; 2-Crown, 7½d.; 1-Crown, 7½.; M.F., 6½d. Sultanas: 5-Crown, 10½d.; 4-Crown, 9½d.; 3-Crown, 8½d.; 2-Crown, 8½d.; 1-Crown, 8d.; plain, 7½d. Lexias and Walthams, 6-Crown, 8d. per lb.; 5-Crown, 7d.; 4-Crown, 6½d.; seedless, 7d.; 3-Crown, 6½d.; 2-Crown, 6½d. Seeded Raisins: 1-lb. cartons, per doz., 8/10½; 12-oz., 7/1½; 8-oz., 5/-; bulk, per lb., 8½d.; bulk (Midgets), per lb., 7½d.

DRIED FRUITS QUOTA.

The Minister of Agriculture (Mr. Hogan), has approved of the following maximum proportions of the various dried fruits which may be marketed within Victoria for the season, 1941:—Dried Currants, 17 per cent.; dried Sultanas, 14 per cent.; Lexias, 20 per cent.; dried



Licensed Farm Produce Agent

F. CHILTON

ESTABLISHED 1894

Fruit Commission Agent

SHIPPING NO. 56.

HIGHEST MARKET PRICES

PROMPT RETURNS

RELIABLE ADVICE.

Registered Address for Telegrams and Cables: "CHILTONS."

References:—Bank of N.S.W., Haymarket, Sydney, and Growers throughout Australia.

10 CITY FRUIT MARKETS, SYDNEY.

MEMBER NEW SOUTH WALES CHAMBER OF FRUIT AND VEGETABLE INDUSTRIES.

N. & A. Fruit and Produce Pty. Ltd.

Licensed Farm Produce Agents. (No. 2253)

HEAD OFFICE:

2 STEEL STREET, NEWCASTLE.

References: Bank of New South Wales.

Shipping Numbers on Application.

WE WANT YOUR BUSINESS — IN RETURN, WE OFFER GOOD AND PROMPT SERVICE.

BRANCH: 6 CITY MARKETS, SYDNEY.

Telegraphic Address: "NANDA."

PHONES:

Newcastle, 1365. Sydney, MA 8428.

Producers' Co-operative Distributing Society Ltd.

Are now paying a Bonus of 15% on all Commissions charged to regular clients of the Fruit & Vegetable Section for year ending Sept., 1938

Send Your Consignments
TO US

MELBOURNE & SYDNEY.

GROWERS!—Consign your Fruit to—

JAMES SLATER PTY. LTD.

21 CITY MARKETS, SYDNEY.

Postal Address: Box 36, Haymarket P.O., Sydney.

Established 1882.

SHIPPING NO. 19.

88 VIC. & TAS.

Stencils, Advice Notes, etc., on Application.

FRUITGROWERS!

For Satisfactory Results, Send Your Fruit to

F. H. G. ROGERS

Fruit Selling Expert,

MUNICIPAL MARKETS, SYDNEY.

Shipping No. 83.

Established 1900.

It is estimated that in a normal season about 7,000,000 packages of fruit pass through the Sydney Market annually.

Telephone MA 3846.

Established 1900.

W. MUSGROVE & SON

Licensed Farm Produce Agents.

8 City Fruit Markets, Sydney.

Our Motto—Quick Sales and Prompt Settlements.

Forwarding Numbers:

Tasmania, Victoria, S. Australia, No. 61.

Queensland, Northern Rivers, No. 18.

Prunes, 100 per cent.; dried Peaches, 65 per cent.; dried Apricots, 60 per cent.; dried Nectarines, 95 per cent.; dried Pears, 40 per cent. These percentages set forth the proportions of 1941 season's dried fruits which are available for market within the Commonwealth.

In terms of legislation in all dried fruits producing States, each Board will now take the requisite steps to publish these quotas, which represent the proportion that may be lawfully marketed for intra-State trade. The quotas are subject to review according to market require-

ments as the season advances.

With reference to the recent serious rain damage to the Currant crop in the irrigation areas, it may be necessary, when the extent of this damage can be definitely assessed, to make an early increase in the Currant quota.

SMALLER PACKS FOR PRUNES.

U.S.A. Favors Half-bushels.

The introduction of the Pyramid half-bushel pack for Prunes is reported to be popular. It has been tried out in the past two years by some processors who are satisfied that the American trade prefers this style. The change over followed a nationwide survey of wholesalers and retailers, and their reports strongly favored this size. It is anticipated that all packers will adopt the half-bushel method of packing.

DRIED VINE FRUITS PROSPECTS LOOK GOOD.

In spite of heavy rains in producing areas in January, and the damage which resulted, the prospects for the 1941 season are satisfactory. Exports last season were of good volume and the carry-over small.

In 1940 Australia enjoyed a record crop of dried vine fruits of 95,450 tons, compared with the previous high record of 91,690 tons in 1938. Sultanas represented 61,988 tons, Currants 24,777 tons, and Lexias 8,685 tons. Sultanas were of particularly good quality, and a considerable portion of the pack was of the higher grades.

ALMOND GROWING.

ALTHOUGH ALMONDS have not been extensively grown in Australia, expansion has increased rapidly in recent years and commercial plantings are being undertaken for the nuts instead of, as earlier, mostly for windbreaks. Importations of Almonds from overseas, whilst decreasing, are still considerable and will continue until present plantings attain production age. In discussing this matter, the Pastoral Notes of the N.S.W. Department of Agriculture issues the following warning:—

While there would appear to be some room for expansion in Almond culture, any extension of the industry will need to be undertaken with due regard to such factors as (1) favorable districts, (2) suitable varieties, (3) proper cultural treatment, (4) pruning and (5) control of pests and diseases. These are essential for the profitable production of Almonds under the highly competitive conditions which will probably exist in the near future.

Working Foreman Orchardist

A capable energetic man who thoroughly understands Orchard practice (particularly Cherries, Apples, Pears, Peaches and Nectarines) is required immediately. Wages and cottage £5 per week.

Send full particulars of experience, age, and copies of testimonials to—

"V.H.O." P.O. Box 5 Young N.S.W.



Cable Address: DAVIS, MELBOURNE.

Code: "ABC," 4th and 5th Editions.

Box, G.P.O. 148B.

J. DAVIS PTY. LTD., Fruit Merchants

8 WHOLESALE FRUIT MARKET

Consignments solicited.
Telephone, F 3232.

One Trial Invited.

Best Prices obtained.

Prompt Advice and Payment.

Bankers: The National Bank of Australasia, 271 Collins Street, Melbourne.

Telegraphic Address: "Listeria," Melbourne.

Telephone: F 6341. Private: Win. 4535.

Codes: Bentley's A.B.C. 5th Edition.

IMPORTANT TO GROWERS
Australia looks to you to produce and sell good fruit, but to PRODUCE GOOD FRUIT and have it badly sold is a reflection on your business ability. To sell well is as important as to produce well. The greatest combination that can exist beneficially is that between a painstaking fruitgrower and a painstaking salesman.

If you have good fruit to market, you will find in the firm of **GEORGE LISTER PTY. LTD.** the service you require. Established over 50 Years.

GEO. LISTER PTY. LTD.

12 Wholesale Fruit Market, Franklin Street, Melbourne.

(Managing Director: J. R. VAIL)

Bankers: The Commercial Banking Coy. of Sydney Ltd. (Melbourne Branch).

Silbert, Sharp & Davies
Pty. Ltd.

FRUIT MERCHANTS

17 Wholesale Fruit Market
Phone: F 2287.

CONSIGNMENTS OF FRUIT AND VEGETABLES
Assured Highest Market Rates.

P. A. PATRIKEOS

36 Wholesale Fruit Market
Melbourne
Telephone: F 2227.

A. MILLIS & SONS

34 Wholesale Fruit Market

EXPORTERS AND IMPORTERS

Specialty—Prompt Returns. Cheques every Wednesday. Phone: F 1862

J. W. ROSS

13 Wholesale Fruit Market

WHOLESALE FRUIT MERCHANT

Prompt Returns and Sales Notes Daily
Tel., F 2426.

G. WOOLF

29-30 Wholesale Fruit Market

WHOLESALE FRUIT MERCHANT
& COMMISSION AGENT

Telephone: F 5550.

BELL, BANSON Pty. Ltd.

Wholesale Fruit Merchants,
20 Wholesale Fruit Market, Melb.
CONSIGNMENTS OF FRUIT AND
VEGETABLES SOLICITED.
Tel.: F1023; Private: JW2528.
Bankers: E.S. & A. Bank,
Market Branch.

T. Stott & Sons Pty. Ltd. FRUIT MERCHANTS ESTABLISHED 1882.

26, 36 Wholesale Fruit Market, Melbourne. And at VICTORIA MARKETS.

COUNTRY AND INTERSTATE ORDER TRADE SUPPLIED.

SHIPPING No. 41.
PHONE: F 4370.

PROMPT SETTLEMENTS.

CONSIGNMENTS SOLICITED.
Bankers: Bank of Australasia, Melbourne.

Regular Supplies of
Quality Fruit well Packed
and Graded will realize
the Best Prices.

H. LOUEY PANG & CO. PTY. LTD.

FRUIT AND PRODUCE MERCHANTS

No. 4 WHOLESALE FRUIT MARKET, MELBOURNE

G.P.O. Box No. 795F, Melbourne.

References—E.S. & A. Bank, 225 Swanston St., Melbourne.

Telegraphic Address: **GOOD PRICES ASSURED**

"PANGANCO."

Cheques Sent Promptly.

F 6532.

Telephones: F 4394
(After hours) F 6576

SHIPPING
NO. 91

Telegrams and Cables:
"PAXINOS," Melbourne.

D. S. LUCAS & CO.

Accredited Selling Agent S.A. Tomato, Celery, and West Australia Tomato Association. Fruit and Banana Merchant, Importer and Exporter, and General Commission Agent.

PROMPT RETURNS. £1,000 FIDELITY BOND.
9 WHOLESALE FRUIT MARKET, Box 4076, G.P.O., Melbourne.
Members Wholesale Fruit Merchants' Assn. of Victoria.

H. & S. FRANKEL

(Established 35 Years)

No. 44 WHOLESALE FRUIT MARKET, MELBOURNE.

Growers in all States are invited to send consignments. Highest market rates and prompt settlements.

Telephones—

Store: F 4874.

Private F 1555 & FW 3711.

Bankers—

Commonwealth Bank of Australia.
"Growers' Interests further protected by our Fidelity Bonds."

A. E. PITT

Established 1893.

Member of Wholesale Fruit Merchants' Association of Vic.
14 WHOLESALE FRUIT MARKET, MELBOURNE.

Consignments Solicited from all States.

Growers Will Receive Top Market Value and Prompt Returns.

Fidelity Bond Guarantee for £1,000

Pea and Bean Stands,
11 and 12 Victoria Market.

Reference—E.S. & A. Bank,
Elizabeth St. Branch, Melbourne.
Phone: F 5035.

Tim Young & Co.
Pty. Ltd.

WHOLESALE FRUIT MERCHANTS

18 Wholesale Fruit Market

Growers can be assured of receiving the very best service and prompt returns.

Cable Address "TIYOUNG"

A.B.C. Code, 5th Edition.
Box 28a, G.P.O., Melbourne.

TELEPHONE, F 4321

Bankers:

E.S. & A. Bank Ltd.,
Melbourne—226 Swanston Street.

Stencil or Labels on application.

Dried Fruits Rank High in Energy Value but Low in Cost

In an address delivered recently at Mildura, Mr. P. Malloch quoted figures prepared by prominent British dietitians and compared various products as related to shipping space required. Reports from London indicate a big demand for all classes of dried fruits. Australian dried fruits stored in the United Kingdom still show excellent quality and it is anticipated that all will be absorbed by the Christmas trade. 194,000 tons of dried fruits was distributed between September, 1939, and July, 1940, much more than normal consumption, and including 74,000 tons Sultanias, 61,500 tons Currants, and 6,700 tons Raisins.

Mr. Malloch, however, believed that the prospects for the dried fruits industry would be dependent upon conditions after the war concluded, and at present was subject to speculation only. The total production for 1940 in Australia would be about 94,000 tons, as against 72,500 tons in 1939 and 91,700 tons in 1938. Mildura production represented a value of £2,000,000 this year, of the approximate total value for Australia of better than £3,000,000.

The distribution of the 1940 crop was approximately 48,000 tons to U.K., 20,000 tons to Canada, 5,500 tons to New Zealand, 700 tons to the East, and 16,500 tons in Australia. With the shutting off of Mediterranean supplies and reduced quantities from Australia and South Africa, it was expected that Britain's imports would be down about 25,000 tons.

Quoting figures from "Food Purchases in War Time," Mr. Malloch stated that a comparison of various food products revealed the following:—

Shipping Space, Cubic Feet per Ton.	
Sugar	45
Dried Fruits	50
Wheat (bulk)	50
Butter	55
Cheese	60
Fats	80
Beef	95
Bacon	110
Eggs (in shell)	120

Energy Value in 1,000 Calories Per Cubic Ft.

Butter	143
Fats	118
Sugar	83
Cheese	56
Wheat	56
Dried Fruits	55
Bacon	39
Beef	26
Eggs	12

Average Cost per 100,000 Calories.

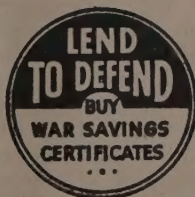
Sugar	4/3
Wheat	5/5
Fats	8/4
Dried Fruits	21/-
Butter	27/3
Bacon	35/9
Cheese	39/4
Beef	40/2
Eggs	74/5

The writers had followed their analysis, said the speaker, by pointing out that sugar, while occupying the smallest shipping space in proportion to energy value and being the cheapest energy food, was not as valuable as cheese and dried fruits as food for health.

Mr. Malloch concluded his address by stating that the official ranking of foodstuffs in order of preference for importation to the United Kingdom was wheat, butter, sugar, cheese and dried fruits. We could, therefore, look forward with confidence so far as the clearance of the 1941 crop was concerned.

An officer's batman was going on leave. Giving final instructions to his deputy, he handed two bottles of medicine to him with the words:—

"This bottle is the officer's, and this is for the horse, and whatever you do, don't get 'em mixed, because when I come back you'll cop it if anything's happened to that horse."



Herbert Wilson Pty. Ltd.

WHOLESALE FRUIT MERCHANTS AND COMMISSION AGENTS

Nos. 1 and 10, Wholesale Fruit Market, Melbourne.

Accredited Agents for Victorian Central Citrus Association and Affiliated Association.

City Telephone: F 6444.

Private Phone: M 3055.

Bankers: National Bank of Australasia (Western Branch), Melb.

Market Notes and Prices

NEW SOUTH WALES.

Sydney: The following report is taken from the "Weekly Marketing Notes," issued by the N.S.W. State Marketing Bureau, for week ending February 26.

A considerable volume of business was transacted in Williams Pears, both local and Vic. lots selling freely. Towards the close of the period, green lines were in short supply and values higher. Ripe fruit was plentiful at times, principally Vic. consignments, and sold cheaply. Some Packham's Triumphs commencing to arrive on the market were mainly in a green, hard condition.

A wider range of varieties of Apples was available, and included supplies from Q'land. and S. Aust. Demand for colored lots of Jon. and Del. of good quality was satisfactory, and there was a fair inquiry for Fanny and King David, but Tas. Worcester Pearmaines were difficult to sell. G. Smiths were plentiful and available at fairly low rates.

Inquiry for both Black and White Muscatel Grapes of choice quality was well maintained, but, at times, medium lots were slow to clear. Other varieties were not sought after and some white lots were practically unsaleable.

Coastal Val. Oranges continued to clear slowly, but consignments from the Irrigation Area were in request at higher prices.

Fairly heavy consignments of Q'land. Lemons on offer sold well at from 14/- to 18/- bush.

Considerable quantities of Pineapples continued to come

forward, and values were at fairly low levels. The condition of some lines was unsatisfactory, and these sold cheaply.

There was a good inquiry for the light supplies of Passionfruit, and choice lots realised higher prices.

Large quantities of ripe Bananas were available, and much difficulty was experienced in clearing stocks, even at concession rates. The market for good, trade fruit was adversely affected, and values suffered a severe setback. Prospects were brighter at closing and prices were inclined to firm.

Vic. Peaches constituted the bulk of supplies on offer, but some lots opened up in wasty condition. Locally grown fruit sold well and, at times, realised to 9/- half case.

Stocks of Persimmons showed a marked increase, and sold at up to 5/- half case.

Ruling rates are:—

Apples: Jon. 4/- to 9/-, G. Smith 3/6 to 6/6, Del. (Q'land) 6/- to 9/-, W.P. (Tas.) 3/- to 6/-, Fanny and King David 4/- to 6/-.

Pears: Williams (N.S.W.) 6/- to 10/- (ripe lines lower) per case.

Peaches: 5/- to 8/- half case. Vic., White Flesh 8/- to 12/-, Yellow Flesh 6/- to 8/- bush. case.

Plums: 2/- to 5/- (few higher).

Grapes: Black Muscat 4/- to 9/-, White Muscat 5/- to 9/- (few specials higher); other Black and White varieties 3/- to 5/-.

Passionfruit: Choice 12/- to 15/-, other 4/- to 10/-.

(Continued on page 26.)

Agents in the

BRISBANE FRUIT MARKETS

Highest Prices.

A. S. BARR

Prompt Returns.

FRUIT EXCHANGE, BRISBANE, QUEENSLAND.

Wholesale Fruit Merchant and Growers' Agent.

A Trial Solicited. Returns Speak for Themselves. Shipping No. 19. Established 1888. Registered Telegraphic Address: "Barr, Brisbane."

W. Arkell & Sons

Estab. 1892

BRISBANE, B.12.

GROWERS' AGENTS.

Shipping No. 12

Bankers: National Bank of Australasia, George St., Brisbane.



MURRAY BROS

Motor Notes

SYNTHETIC RUBBER AND PETROL.

Meeting War-Time Conditions.

That Germany is feeling the pinch owing to her inability to secure enough raw materials is suggested by the frequent reports of all kinds of synthetic foods which she is using. The people have to accept these or go without. But in other countries too scientists are fast discovering adaptations that previously were not needed.

In U.S.A. last year 3,500,000 lb. of synthetic rubber were manufactured and other artificial compounds made from coal, lime, salt and water, sodium, and other materials. Rubber is being manufactured from buna, a by-product of coal. A factory is being erected in Louisiana to

make 10,000 lb. of rubber per day.

In Australia, petrol shortage is turning our thoughts to shale oil, and some success is reported. At Glen Davis, in N.S.W., 800 men are employed, and it is predicted that eventually 30,000,000 gals. petrol per year will be possible. Tests are also being made to extract petrol from sugar cane and other vegetable plants. The war will be responsible for developing many hitherto neglected industries.

MOTOR BRIEFS.

When lubricating a spring shackle, make sure that the oil gets right through the bearing and oozes out on both sides. The waste is less costly than a dry bearing.

GROWERS — Consign Your Fruit and Vegetables to Agents who are Members of N.S.W. Chamber of Fruit and Vegetable Industries

LIST OF MEMBERS Fruit Section.

Allen, Stan.
Associated Growers' Selling Agency.
Banana Growers' Distributors.
Billett, E. J.
Black & Son.
Bragg, R.
Broadbent, R. J.
Bromley, W. E.
Brooks, P.
Bryant, J. W.
Bryant, L. J.
Buhl, F. & Son.
Buhl & Hacking.
Cave, R.
Chew, P. W., & Co.
C.O.D.
Chilton, F.
Clutton, E. J.
Cooper, A. J., Pty. Ltd.
Dundon, F. C.
Ewen & Sons.
Express Fruit Service.
Gibbs, C. & Son.
Gosford Bulk Loading.
Greentree, H. J.
Hawke, J.
Hay Bros.
Hie Lee & Co. Ltd.
Hill, F. W.
Holmes, J., Ltd.
Hopkins & Lipscombe.
Hop Lee & Co. Ltd.
Isaacs & Sons.

Jenkins & Londregan.
Jolly, J. N.
Jurd, W. A.
Kellaway, C. G., & Sons.
Kennett, F. C.
Kirkwood, J. W.
Lockart, H. C.
Locke, L. T.
Martin & Co.
Mason, A., & Co.
Mason, J. J.
Mitchell & Hall.
Mitchell & Lawless.
Moore & Lloyd.
Moss, J., & Sons.
Mugrove, W., & Son.
McKellar & Devlin.
N. & A. Fruit & Produce Co.
Palmissano Bros.
Paterson & Co. Ltd.
Picone, F.
Producers' Co-op. Scty. Ltd.
Quigley, E.
Radley's Auctions Pty. Ltd.
Reedy Bros.
Rogers, F. H. G.
Roughley, Oliver.
Salmon, F. J., & Co. Ltd.
Salter Bros.
Sandrin, A.
Scarmuzzi, C.

Schuster, A. E.
Silk Bros.
Sinclair, W. J.
Slater, J., Pty. Ltd.
Southcott, W. H.
Spurway, E. A.
Stanton, E. T.
Stassi, G.
Stevens, F. G., & Sons.
Sun Lee & Co.
Sunnyside Orchards Pty. Ltd.
Terrey, A.
Terrey, J.
Trathen & Hall.
Turnbull, D. C.
Valentine, A. B.
Valentine, R., & Son.
Vince, L. L.
Waddell, A. W.
Walker, A. H., & Son.
Walters, M., & Co.
Ward & Felton.
Watkins & Evans.
Wilson Bros.
Wilson, Herbert.
Wing Chong & Co. Ltd.
Wing On & Co. Ltd.
Wing Sang & Co.
Wing Tiy & Co.
Woodward, H. P.
Yick, S., & Co.
Yocksul Bros.

R.P.B. & Co.
Boot & Carter.
Brailey, H. J.
Chew, P. W., & Co.
Clarke, H. M.
Clarke & Son.
Clarke, R. G.
Clayton, J., & Son.
Clements & Kemp.
C.O.D.
Comino Bros.
Cooke, E.
Cooper, C.
Curtis, W. J.
Denning Bros.
Dickson, H.
Dunstan & Norris.
Evans, E.
Farley, J.
Fong, Sue & Co.
Gray, G.

Vegetable Section.
Greenberg, S. & M.
Greentree, C. C. & Son.
Hanigan & Drane.
Hawke, J.
Hie Lee & Co. Ltd.
Isaacs & Sons.
Johnston & Tebbutt.
Leadow, A.
Locke, L. T.
Messent & Gauld.
Mitchell & Galvin.
Mitchell, T. S.
Molesworth, G. H.
Montgomery & Son.
Moss, A.
Moss, J., & Son.
Parker, E. W., & Son.
Paul, W. J.
Peters, S. A.
Producers' Co-op. Scty. Ltd.

P. S. MACDERMOTT, General Secretary,
215a Thomas St., Haymarket, Sydney.

POWER ALCOHOL FROM SUGAR.

The Queensland Cane Growers' Council says that the present petrol shortage can be assisted by producing power alcohol from sugar cane products as well as from wheat and other plant products. Sugars can be transformed into alcohol by fermentation of cane products not otherwise economical to process, also that it is possible to produce as high as 60 gals. pure alcohol per ton of molasses by-products of which Queensland produces some 20 million gallons per year.

The method adopted is fermentation followed by distillation and the Colonial Sugar Refinery's distillery at Sarnia was erected in 1926 under authority of the State Government. Plants at Melbourne and Sydney were erected in 1938, and all have since produced what is claimed to be a high-grade quality power alcohol.

GUARD AGAINST FIRE WHEN FILLING PETROL TANKS.

Petrol rationing has caused more drawing of supplies from tins and drums, and a warning is due against carelessness when filling. Some drivers foolishly smoke when doing jobs around a car, and petrol leaks can become the more dangerous.

The flow of petrol from the container can create static electricity which will store up in the tin, or measure. Under certain conditions this current may jump to the end of the petrol tank filler, with a possibility of igniting the petrol, and a serious fire may result.

To guard against such an accident, the container from which the petrol is being poured should be kept in direct metallic contact with the filler pipe whilst the petrol is being poured.

If the petrol is poured from a container into a funnel fitted in the filler pipe, the container should be kept in contact with the funnel, and the funnel in contact with the filler pipe. If poured direct from a container into the filler pipe the container should be kept in contact with the edge of the filler pipe.

MARKET NOTES—(Continued).

Persimmons: 2/- to 5/- half case.

Oranges: Val., coastal 3/- to 8/-, Irrig. Area 5/- to 10/- (few higher).

Lemons: Coastal 5/- to 12/-, Q'land. 14/- to 18/-.

Quinces: 6/- to 7/6 bushel case.

Bananas: Nines and eights 11/- to 13/-, specials to 15/-, sevens 10/- to 12/-, sixes 8/- to 10/- (ripe and inferior lower).

Rock Melons (Irrig. Area): 4/- to 6/-, few 7/-.

Pineapples: 5/- to 10/- trop. case.

VICTORIA.

Melbourne (4/3/41): Wholesale Fruit Merchants' Association quotations (case):—Apples, eating, 4/-, 6/-, choice higher; cooking, 3/-, 4/-, few higher; Bananas, 7/-, 11/-, few higher; Grapefruit, 9/-, 16/-, selected higher; Grapes, 5/-, 10/-, few higher; Lemons, 8/-, 16/-, selected higher; Oranges, 6/-, 12/-, selected higher; Passionfruit, a half case, 2/-, 5/-, a few higher; Pineapples, 8/-, 11/-, few higher; Peaches, ripe, 2/6, 6/-, few higher; Tomatoes, local, 2/6, 6/- per case, few higher; Plums, 2/-, 4/-; Pears, 4/-, 6/-; Cantaloupes, 2/-, 5/-, few higher.

SOUTH AUSTRALIA.

Adelaide: The S.A. Fruit-growers' and Market Gardeners' Assn. Inc. report under date March 1 as follows:—

Vegetables cleared well on Friday's markets, with Beans and Peas in stronger demand, the price for the latter lines being advanced. Other vegetable quotes were unchanged.

Fruit also had a steady demand, but with the exception of an increase in the quote for white flesh Peaches quotes were unchanged. Water Melons had a firmer demand.

The under-mentioned quotes are for f.a.q.

Vegetables: Beans (French), 3/-, 4/- doz. lbs.; Beetroot, 1/6 doz.; Cabbages, large 5/-, 6/- doz., medium 4/-, small 2/6, 3/-; Carrots, 2/6 doz. bchs.; Cucumbers, 8/- case; Lettuces, 1/6 doz.; Onions, 12/- cwt.; Parsnips, 2/- doz. bchs.; Peas, 9/-, specials to 10/- bushel; Potatoes, 8/-, 9/- cwt.; Rhubarb, Cherry, 1/- doz. lbs.; Tomatoes, firsts, 4/- to 5/- 1/2 case; Trombones, 5/- cwt.; Turks Head, 5/- cwt.; Turnips, 2/- doz. bchs.; Swede 2/6 doz. bchs.; Triangles, 5/- cwt. (Cases extra.)

Fruit: Oranges (Common), Val. 8/-, 10/-; Lemon, 18/- (special higher) case; Peaches, White Flesh 5/-, Yellow Flesh 3/6; Nectarines, 6/- 1/2 case; Plums, Japanese 3/-, Prunes 2/6 1/2 case; Grapes, 4/6 1/2 case; Bananas, 20/-, 22/- crate; Pineapples, 11/-, 13/- crate; Melons, Sweet 14/- cwt., Water, 10/- cwt.

Fruit Merchants and Exporters of South Australia

When Consigning to ADELAIDE MARKET, try—

Earle S. Caldicott
FRESH FRUIT SPECIALIST

Interstate Representative, Exporter
& Commission Agent

Communicate: Box 970 H, G.P.O., Adelaide.
Phone: C 2882. After Hours, L 5395.
Telegrams: "Caldicott," Adelaide. Reg.

Growers! Consign your Fruit To

H. C. Austin

Wholesale Fruit and Produce Merchant, General
Exporter, Commission Agent, Shipping Provider.
Specialty Overseas Export All Countries.

New Market, Union St., Adelaide

Phone C 746. G.P.O. Box 722. Telegrams: Austin Fruit.

Poultry Notes

MITES.

Watch the Perches.

Readers are reminded to watch the perches and houses for mites. Mites differ from lice in that they do not live on the birds but hide in crevices on the perches or cracks in the building and come out at night to suck the blood from the fowls. The eggs are laid in sheltered cracks and hatch out in four or five days. They multiply quickly in warm weather. Painting the perches with used sump oil from the motor car is recommended as a control measure.

When not full of blood the mites will appear as greyish white masses. They can lie dormant in the cold weather and appear to come to life when warmer weather comes; in this they differ from lice, which operate throughout the year.

Scaly legs often arise from a mite which burrows into the flesh under the leg scales. It sucks the blood and causes a thickening of the leg. Lard mixed with 6 per cent. carbolic acid should be rubbed on the affected parts; repeat if necessary.

SALT.

Can Be Overdone.

The use of common salt (sodium chloride) is necessary in some form or other for all living creatures. It is the quantity that should be taken that worries some poultrymen. Vegetables, grasses, etc., are commonly thought to contain all the salt that fowls require, but this is not so. Salt is recognised as one of the most important constituents of mineral matter.

Its main uses include an important addition to the food ration and its deficiency leads to general debility, anaemia and a tendency to dropsical conditions. It is also a good application to the soil against eggs of intestinal parasites.

The dose generally advised is 1 per cent., or 1 lb. salt to 100 lb. of mash, whilst for the land a solution of half ton salt to the acre is recommended. Care should be taken, however, that too much salt be not given, as 2 lb. to 100 lb. mash is too much, and if 1 lb. is adhered to it should be satisfactory.

STOPPING SPUR GROWTH.

Treatment of Young Cockerels.

Young cockerels may be treated with potassium hydroxide in order to prevent the development of spurs. This method consists of cutting off the spur cap close to the leg and rubbing the wound with a stick of potassium hydroxide. The proper age for treatment is 10 to 12 weeks for Leghorns, and 14 to 16 weeks for heavier birds, or before the spur cap is more than a quarter of an inch long.

The Pig Pen

SHADE FOR PIGS.

A DEQUATE SHADE for pigs should be provided. The ordinary sty, especially if it has an iron roof, is hot, and some other shade is necessary in the heat of the day. If there are no trees nearby, a wooden shed will answer the purpose. Another important aid to the health and comfort of pigs is a bath in which they can lie in hot weather. To wallow in the mud is the pig's natural method of cooling itself. Unfortunately, the wallow sometimes seen on the pig farm is a filthy puddle-hole. If there is infection of any kind in the yard it is to be found in just such a place. Dirty wallows should be drained and filled in, and a concrete or similar bath provided. This can then be kept clean, and the liability to infection will be diminished. Comfortable and hygienic conditions are most important in maintaining the health and well-being of pigs.

CLEAN WALLOW NEEDED.

Tests Show Weight Gain.

Experiments conducted in U.S.A. at an Agricultural Research Station showed that pigs provided with a clean wallow gained weight quicker than those without a wallow.

Ten pairs of pigs were used in a test of 90 days. One pig in each pair had access to a concrete wallow, and the other was kept away from it. All pigs were given the same food in individual pens.

Average temperature during the Summer months when the test was conducted was 83 deg. Fahr. All pigs had access to shade.

The 10 pigs which had access to the wallow made an average gain of 14 lb. per pig, and required 10 lb. less feed per 100 lb. gain in weight than did similar pigs without access to the wallow.

What To Prune For

Study the Tree Itself

IN answering the question as to what should be the chief aim in pruning, the "N.S.W. Agricultural Notes" says that it should undoubtedly be to prune the young tree so as to develop a strong, well-shaped frame. In years to come the tree must bear a burden of fruit, and to do this it must be so treated that it will have sturdy limbs. If limbs are allowed to weaken by excessive unchecked growth and to commence cropping whilst the limbs are too fragile to bear the weight of fruit, results may be disastrous.

It will be most unsatisfactory and unprofitable to the grower to harvest a crop of fruit from trees if that crop has been produced at the expense of the well-being of the tree. If young trees are carefully selected and then sturdily built up, the subsequent cropping must be satisfactory. It is important to observe that if a good framework has been induced, and if the tree is still growing vigorously, it is usually advisable to allow the tree to remain unpruned for a season. This will induce it to crop.

Study the Tree.

It scarcely needs urging that the characteristics of any tree must be taken into consideration. It is well known that Peaches bear only on last year's growth and unlike the Apple and the Pear, the trees do not develop fruit-bearing spurs. In old Apple and Pear trees these fruit-bearing spurs sometimes need thinning out to prevent their becoming too crowded.

Factors which influence the growth and development of trees, such as soil, location, character, and influence of stock, manuring, cultivation, and spraying, all play their part in

deciding the extent and nature of the pruner's operations, and prevent any rigid rule being laid down. Each tree has its own individuality, and this individuality cannot be ignored by the pruner. The annual production of a crop, ample in quantity and good in quality, is the orchardist's aim, and to accomplish this aim the characteristics of each tree must be studied closely.

The Prime Aims.

The main objects to be secured by pruning may be briefly stated as follows:—

1. The economic working of an orchard in all its branches—cultivation, picking, syringing, etc.
2. The production of good bearing wood.
3. Improvement in appearance of fruit in so far at least as size and color are concerned.
4. Inducement of regular cropping.
5. Maintenance of the tree in a healthy condition.
6. Opening up of the central axis of the tree to the influence of warmth and light.

If the pruner keeps the foregoing objects well in mind and shapes his operations accordingly, he cannot go far wrong.

U.S.A. GOVERNMENT BUYS PEARS FOR RELIEF AGENCIES.

The Surplus Marketing Administration of U.S.A., in September bought 400 car-loads of surplus Pears to release to Relief Agencies. It paid 6/- per case for Anjous and 5/- for other varieties. This not only made the fruit available for families on relief but also took a share of the surplus fruit off the market.

SPECIAL NOTICE TO FRUITGROWERS

All Members
under
Fidelity Bond

In response to numerous requests from growers for information as to who are members of the Wholesale Fruit Merchants' Association of Victoria the following list is given. All are members of the above Association, and are registered firms carrying on business in the

WHOLESALE FRUIT MARKET, MELBOURNE.

STAND NUMBERS ARE AS INDICATED IN PARENTHESES.

T. STOTT & SONS PTY. LTD. (26-36).

H. L. E. LOVETT & CO. (23).

A. E. PITT (14).

J. DAVIS PTY. LTD. (8).

W. S. TONG (31).

SILK BROS. PTY. LTD. (24-25).

J. G. MUMFORD (35).

GOLDEN VALLEY FRUIT CO. PTY. LTD. (15).

J. W. ROSS (13).

H. M. WADE & CO. (21).

DAVID SMITH PTY. LTD. (3).

SILBERT SHARP & DAVIES PTY. LTD. (17).

WATKINS FRUIT COMPANY PTY. LTD (5)

G. WOOLF & SONS (29-30).

R. CORNISH & SONS (5).

J. HYMAN & SON (51).

HERBERT WILSON PTY. LTD. (10).

FRANK BOOTH & SONS PTY. LTD. (16).

GEO. LISTER PTY. LTD. (12).

TIM YOUNG & CO. PTY. LTD. (18).

F. W. VEAR PTY. LTD. (28).

YEE HOP LOONG & CO. (32).

H. LOUEY PANG & CO. PTY. LTD. (4).

WING YOUNG & CO. (38).

D. MENTIPLAY & CO. PTY. LTD. (27).

PRICE & KING PTY. LTD. (2).

REGAN & KENNY (Successors to W. Sweeney). (33).

Correspondence is invited by the Association.

Office : 21 Wholesale
Queen Street, Melbourne.

Tasmanian News and Notes

Crop Prospects — Acquisition Problems — Apples for Troops — "Planned Reduction of Crops."

THE NORTHERN orchards have suffered very severely this year. They have had frost damage, hail, an abnormal gale, and a long dry spell which, combined, will reduce the crops considerably. Odd orchards that escaped severe damage are carrying nice crops.

Some of the orchards in the Spreyton district have very good crops of clean fruit. The Midlands, where it is usually dry at this time of year, looks very nice and green, as they had two or three heavy thunderstorms.

The southern districts need a good heavy rain immediately, as

in many places the leaves are turning yellow and the fruit is stopping growing.

Codling Moth has been much worse than usual, and Red Spider, favored by the dry spell, is showing up. Cleos. are standing up to the dry spell better than most varieties, and Jonathans are good.

The Acquisition Committee has called on growers to supply Gravensteins for the local market and Worcester Pearmain for Sydney. I don't think they got as many as expected, because no 2½ in. were accepted, and the Gravs. dropped heavily. No in-

dication has yet been given as to what varieties or quantities will be wanted later.

Criticism has been expressed at the appointment of a firm as sole distributors of Apples and Pears in Tasmania.

The single case trade should receive special attention.

There are problems in relation to the wastage of unscheduled varieties.

Apples for Troops.

The State Fruit Board, at its last meeting, passed a resolution recommending that Apples be made available to the Australian troops. In many instances the military trucks could pick it up at the orchards in secondhand cases and save presentation costs.

Planned Reduction of Crops.

I notice that Mr. E. A. Saxon (University of Tasmania) in a very good article on the prospects of the Australian Apple

and Pear industry recommends or suggests a "Planned contraction of the industry" to meet the changed conditions brought about by the curtailment of exports. It certainly seems to be doubtful wisdom to continue to produce fruit in unsuitable localities at a high cost and then throw it away, and the only way to increase Australia's consumption is to sell more directly and cheaper to the consumer: at present it passes through too many hands on its way from producer to consumer.

Hobart, 23/2/41.

Later: Rain just set in.

THE STORAGE OF APPLES.

Common Storage on the Farm.

Under certain circumstances, common storage can be a valuable adjunct to cold storage, is claimed by Mr. E. C. Whittaker, Fruit Packing Instructor, N.S.W. Dept. of Agriculture. The behaviour of Apples in common storage is related to (1) The natural and inherent keeping qualities of the fruit concerned, (2) Picking at the right stage of development, (3) care in picking and handling, (4) suitable strong facilities, and

(5) prompt cooling.

Common storage, however, should be restricted to those varieties known to keep well, such as Granny Smith, Democrat, Statesman, Dunns, and such as will keep well up to a certain period that precludes wastage and that retain the color wanted by buyers. Those varieties having a greasy skin should be protected from dust and all stored fruit should not be kept longer than a period which allows for the natural ripening process and for the fruit to still reach the consumer in good condition, therefore well before breakdown commences.

Softer varieties such as Jonathan, Delicious, etc., are most unsuitable for common storage. Even under the best conditions, their storage life is very limited, and in their case, cold storage is preferable. Mr. Whittaker warns against close stacking of the fruit before it is cooled off and suggests that it should be left unstacked, but under cover overnight to reduce the natural temperature.

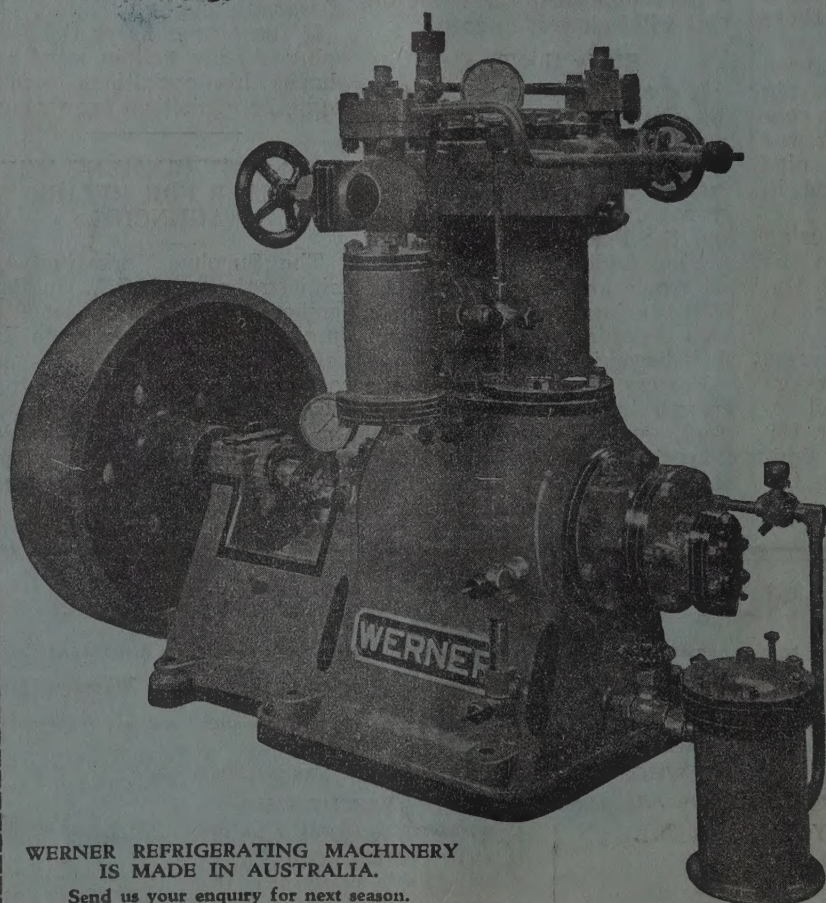
BORON DEFICIENCY.

An experiment in Russia, reported by the Imperial Bureau of Horticulture (Eng.), shows that plants that were given boron with the fertilizer produced higher yields and bore the smallest number of fruits that had not fully developed. The tests were made on Peas and Lentils. The amount of boron needed was reported to be very slight. The application of boron with increased applications of lime interfered with normal seed formation, and induced abortive fruit.

"WERNER" PLANTS Refrigerate Over 1½ Million Cases

of Fruit in over 60 Stores throughout the Commonwealth

We design and Install Plants to Store from 500 Cases upwards



Enclosed Type
Ammonia
Compressor
Suitable for
Full
Automatic
Control

Direct
Expansion
or
Brine
Circulation

Type of
Compressor made
by Werner from
10-ton
upwards

WERNER REFRIGERATING MACHINERY
IS MADE IN AUSTRALIA.

Send us your enquiry for next season.

R. WERNER & CO. PTY. LTD.

Refrigerating Engineers

54-86 BURNLEY STREET, - - RICHMOND

Phones: J 1161 (6 lines).

CITY SHOW ROOM: 610 LITTLE COLLINS STREET, MELBOURNE. Phone: MU 6273.

AGENTS—

West. Aust.: Atkins (W.A.) Ltd., 894 Hay St., Perth.

South Aust.: W. J. White, 56 Franklin St., Adelaide.

Tasmania: Noyes Bros., Hobart and Launceston.

N.S.W.: R. J. Lindsay, 99 Kippax Street, Sydney.

Stuart Walker, 174 Clarence Street, Sydney.

Q'land: Garoche Pty. Ltd., Wooloongabba, Brisbane.